# PRINTING EQUIPMENT ENGINEER

JANUARY • 1933

A Technical Publication for Mechanical Executives Responsible for Printing Production, Equipment and Supplies

# Speaking of Speed...

## FACTS ★

**Newspaper publishers and pressmen recognize the value of facts and figures when considering the relative merits of presses. Vague generalities can be shouted from the housetops—but they are worthless when they cannot be backed up by the cold facts of actual performance.**

**▪ Speed and net production can be measured accurately. Yet some press manufacturers persist in making empty claims that their presses are the fastest in the world. They do not publish the figures for actual net production to substantiate their assertions.**

**▪ Goss here publishes the figures showing net production of the Goss High Speed Heavy Duty Press in the Manhattan plant of the New York News. These are the highest figures for net production ever published, and we believe we can say with confidence that no newspaper has ever before been able to equal them.**

**▪ This high net production was achieved in printing the regular editions of the New York News, a tabloid newspaper requiring fine printing of half-tones. The figures represent deliveries of salable copies from one folder. Regular standard electric tension devices were used, and the records were established without the use of any automatic paster unit.**

## AND FIGURES ★

**Net production from one folder of the Goss High Speed Heavy Duty Press at the Manhattan plant of the New York News.**

| Date | Number of pages | Total net production of salable copies | Average net production of salable copies per hour |
|---|---|---|---|
| July . . . 19 | 44 pages | 252,446 | 44,028 |
| September . 9 | 64 pages | 244,629 | 40,434 |
| September 23 | 72 pages | 283,787 | 40,158 |
| September 28 | 64 pages | 223,581 | 45,162 |
| September 29 | 64 pages | 228,162 | 43,040 |

This, we believe, establishes a new record for high net production. Over 215,000 papers were run off without a single web break, and there was only one web break during the entire night.

There were only two web breaks on the entire night's run.

## TELL THE STORY ★

**Goss does not fear to publish the facts and figures. It is confident that the Goss High Speed Heavy Duty Press cannot be surpassed for high net production by any other printing press on the market today. And high net production is only one of the many features that make it the leading rotary newspaper press value in the world.**

GOSS

THE GOSS PRINTING PRESS COMPANY, CHICAGO, ILLINOIS

NEW YORK OFFICE: 220 EAST FORTY-SECOND STREET
SAN FRANCISCO OFFICE: 707 CALL BUILDING
THE GOSS PRINTING PRESS COMPANY OF ENGLAND, LTD. · LONDON

# More Economical Composition in 1933

This is a contribution offered by the Ludlow to your 1933 operating economies. . . With the Ludlow, you can set your display composition at less expense, many operations being eliminated entirely. Ludlow users know this. . . Investigate this likely source of new economy—a system that is being adopted by more and more newspapers every year. . . . Let us demonstrate the facts by setting for you one or more typical pieces of your own display copy.

## Ludlow Typograph Company

**2032 Clybourn Avenue + + + Chicago, Illinois**

The ELROD provides ample supply of the finest strip material —leads, slugs, rules, and base—at minimum operating expense.

SET IN KARNAK MEDIUM

*for January, 1933*

# FACTS

"Anonymous bequests which total nearly $5.000.000.00 were made to American Universities in 1931."

—*World Almanac, 1932*

## —AND—

in nineteen thirty-two, 237 additional newspapers adopted

## *Columbian Inks*

because of their

## *Quality*

**THE L. MARTIN COMPANY**

**45 East 42nd Street • New York, N. Y.**

*Arthur S. Thompson, Manager*

COLUMBIAN INKS

# PRINTING EQUIPMENT ENGINEER

TRADE-MARK REGISTERED U. S. PATENT OFFICE. ESTABLISHED 1910.

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NUMBER 1

DON WILL, Publisher • MacD. SINCLAIR, Editor

A TECHNICAL MAGAZINE FOR PRINTING'S MECHANICAL EXECUTIVES

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## *Let others also read* The Engineer

After you have read this copy, pass this magazine along to the other men in your organization. They will undoubtedly get helpful ideas from its pages.

Check in left column after reading. Note articles of interest.

☐ *Composing Room Superintendent*

☐ *Superintendent Press Room*

☐ *Chief Composing Room Machinist*

☐ *Superintendent Stereotype Foundry*

☐ *Monotype Department*

☐ *Photo Engraving Department*

☐ *Superintendent Electrotype Department*

☐ *Foreman Lithographing Department*

☐ *Bindery Foreman*

☐ *Production Manager*

☐ *Mechanical Superintendent*

☐ *Manager*

☐ *Purchasing Agent*

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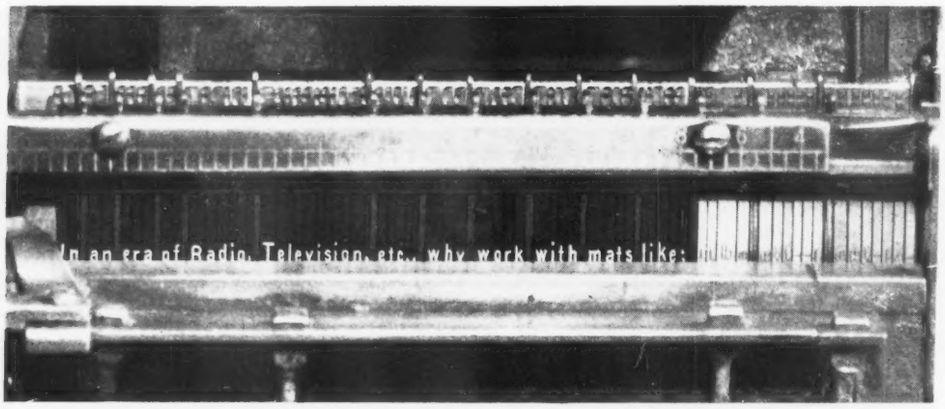
No. 6 of a Series of Advertisements Pointing the Way to Lower Composing Room Costs




A Process Applied to Your Present Matrices Making Them Visible—Note the Contrast

# Oil Lamps for Automobile Headlights were Obsolete Years Ago

Yet—publishers use linecasting machines, costing from $3,000 to $5,000, with operators paid from $2,000 to $3,000 annually, working under conditions similar to the oil light era in automobiles.

Typewriters were scrapped twenty years ago to provide $10.00 to $15.00 per week stenographers with a visible machine.

Unless the linecasting machine is equipped with Black and White processed, visible matrices, the operator is working under the same handicap as when the machine was invented.

A national survey shows six lines per 100 of original composition reset on account of errors. More than 50% of the errors are not a matter of education, but are visible errors any school child recognizes at a glance, such as transpositions, missing letters, double letters and wrong letters.

Assuming that only double time is necessary to correct, 12% of operators' time is devoted to resetting these six lines. Merely to detect these errors the average newspaper employs one proofreader to four operators, while in commercial plants the ratio runs as high as eight proofreaders to ten operators. Then the placing of corrections and handling of revise proofs requires a considerable portion of floor men's days.

Many of these errors can be eliminated in the natural operation of the machine if it is equipped with Black and White matrices.

**We guarantee a 25% reduction in all errors in original composition before you pay us a cent.**

**BLACK & WHITE** *Contrast Matrix!*

## Matrix Contrast Corporation

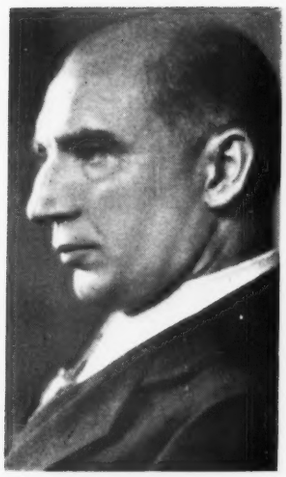
(Sole Licensees of the Percy L. Hill Black and White Patent No. 1466437, held valid by U. S. District Court, Eastern District of New York. Infringers will be vigorously prosecuted.)

**1005 Empire State Building . . . New York**

PRINTING EQUIPMENT ENGINEER
JANUARY, 1933

# The Mechanical Executive and Pressroom Obsolescence

By W. W. HITCHNER*



*Mr. Hitchner Advises the Pressroom Executive to Discard Obsolete Methods. Should Surround Himself with Employes of Own Type.*

OBSOLESCENCE of press equipment is determined by inability to produce printing of any kind in successful competition. There is no doubt that most all printing plants today have more or less so-called "obsolete" equipment. What can we as executives do to meet the keen competition of today with the machinery we have? It is very easy to condemn our equipment as being obsolete, but with conditions in the financial world as they are, it is absurd to expect our employer to junk most of his equipment when we are guilty of employing obsolete methods. We owe it to ourselves and the firm which we represent to get the utmost production from the equipment under our supervision. The conscientious executive will see that all machinery under his supervision is kept in repair and that the maximum speed for best results be maintained. Quite often it will be found that certain adjustments can be made on a cylinder press which will permit running that press at much greater speed than formerly, thereby materially raising the production. In discussing obsolete equipment it would seem that the mechanical executive should educate himself in the elimination of obsolete methods before he can qualify in the matter of condemning equipment as obsolete.

Tradition is responsible for the continued use of many impractical methods, simply because no one has taken it upon himself to analyze processes and inaugurate improvements.

Today the world changes at great speed. New ideas, new methods, new theories are constantly overriding those taught and practiced yesterday. New problems confront us which require constant change in our appraisal of values and our methods of doing things. If we are to keep ahead of these changes, new habits must be formed to develop our mentalities.

The Printing Industry as a whole has been slow to adopt scientific methods of production based on research and experiment, the purpose of which is to eliminate the element of guess-work which often proves so costly as to cause a loss where a profit should result. There is certainly room for research and a vast amount of good is being done by the engineers in this work. The trend however, is too much toward the machine and too seldom directed to the human factor. One of the most necessary things today in industry is human engineering. Unless this vital factor is considered, no work can be consistently successful.

It is imperative that those interested in and responsible for pressroom operation keep up with progress, by studying new machines and methods. They should learn to analyze new ideas and processes. In this way the progressive executive is protecting himself and his firm from making purchases of machinery unfitted for certain requirements, and, further, the question of disposal of obsolete equipment so far as the mechanical executive is concerned, will take care of itself for the good of the industry.

*Continued on page 27*

*Superintendent Pressroom Production, The Robt. O. Law Company, Chicago, Ill.

# Splendid New Home for *Times-Star*

## *Gravity Production System Employed in Routing Work Flow — Mechanical Departments Models of Efficiency*

*By* J. R. Bassler*

Architecturally the new home of the Cincinnati *Times-Star* is one of the finest buildings ever erected to house a newspaper and as a production plant it is immediately recognized as a model of efficiency.

The building itself, while outwardly appearing as one structure, is in two sections; a seventeen-story tower of offices in front and a six-story plant, with two basements, in the rear. It is of steel and concrete construction faced with Indiana limestone with window casements of aluminum and the ornamental metal of aluminum alloy or bronze. The design follows the modern trend, while decorative material both in stone and metal symbolizes some phase of the printing industry.

Eight floors of the tower house the business and administrative offices of the newspaper with the remaining tower floor space as rentable area.

*C. H. Rembold, General Manager, Cincinnati "Times-Star." Mr. Rembold is Assisted in His Managerial Duties by George Fries.*

### GRAVITY PRODUCTION SYSTEM EMPLOYED

The plant is arranged for the modern "gravity system" of newspaper production and every known device for efficient and economical manufacture has been incorporated. Copy comes in at the top floor news room and flows step by step, but continuously downward, through the composing, stereotype, press and mailing departments and emerges a finished newspaper when chuted into the trucks on the street level.

### ART AND ENGRAVING DEPARTMENTS ON SIXTH FLOOR

On the sixth or top floor of the plant, besides the news room, which is connected with the composing room by the latest type of copy conveying equipment, are the art and engraving departments, and the photographer with his completely-equipped dark rooms and spacious studio.

The engraving department consists of three large rooms, two dark rooms, shower, toilet and locker rooms, acid storage room and adequate storage closets. In front is the operating room equipped with two cameras, a 20 in. by 20 in. Wesel and a 24 in. by 24 in. Levy; next is the finishing room with the usual routers, bevelers, saws and proof press, and an electric drying cabinet. The dark rooms are entered from the finishing room. At the rear of the building adjacent to the finishing room is the etching room containing five acid resisting sinks, a Robertson whirler and a Holmstrom etching machine. The acid storage room is lined with resisting material and the floor sloped

*Promotion Manager, Cincinnati *Times-Star*, Cincinnati, Ohio.

*Charles Knorr*
*Superintendent of Maintenance*

*Earl Burwell*
*Superintendent of Stereotyping*

*Philip Pfalzgraf*
*Superintendent of Composing Room*

*William H. Buckton*
*Chief Machinist*

*George Geist*
*Superintendent of Engraving*

*Joseph R. Donohue*
*Superintendent of Pressroom*

to a center drain of Duriron which would quickly deliver any spilled acid directly into the sewer with no damage to the room or building.

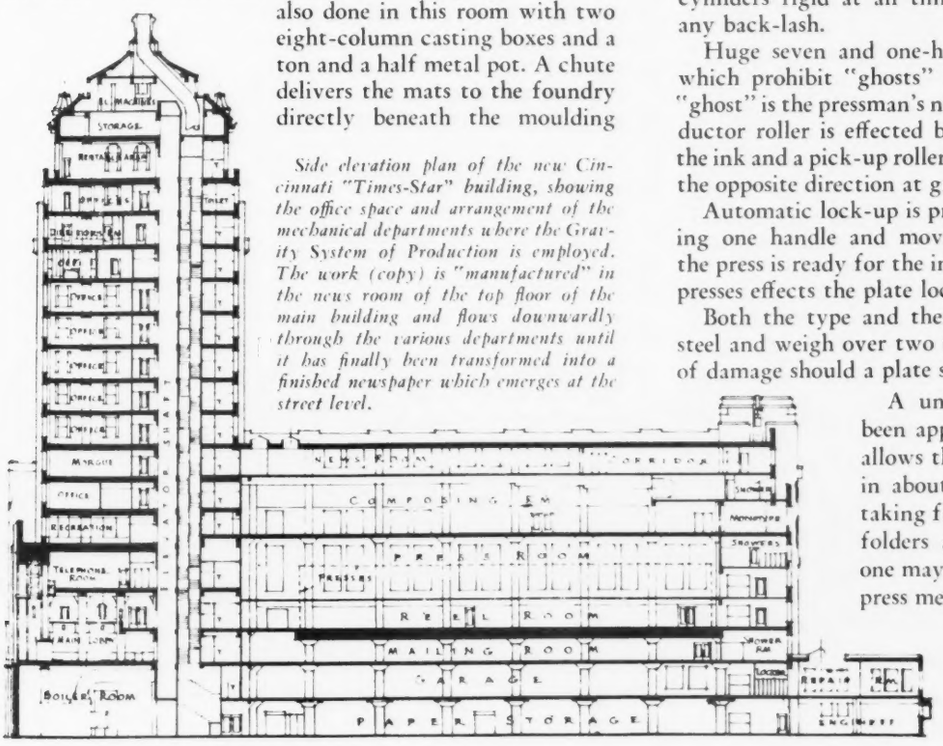
### THE COMPOSING ROOM

The fourth and fifth floors make a large two-story composing room with natural light supplied in abundance by great windows rising from floor to ceiling along both sides of the building. Artificial light was scientifically planned and installed to eliminate all eye strain. A floor of heavy wood blocks is particularly helpful in reducing fatigue to a minimum. Showers, toilet rooms and lockers at either end of the room are provided for the convenience of the employees.

Thirty-four Linotype machines are lined along the south wall completely utilizing the natural light. The casting room at one end of the composing room contains three Elrod casters, one Thompson type caster, and one Monotype material maker. The saws and mitreing machines, including a Rouse band saw and a Rouse vertical rotary miterer, are placed convenient to the usual type racks and cases, and the make-up tables.

### STEREOTYPE MOULDING ROOM

One corner of the huge composing room is partitioned to provide the moulding room equipped with the usual moulders, saws, trimmers and routers. Stereotype job work is also done in this room with two eight-column casting boxes and a ton and a half metal pot. A chute delivers the mats to the foundry directly beneath the moulding room on the press floor level. Partitioned off from the stereotype moulding room is located the metal remelting room for the slug and type-making machines in the composing room.




*Side elevation plan of the new Cincinnati "Times-Star" building, showing the office space and arrangement of the mechanical departments where the Gravity System of Production is employed. The work (copy) is "manufactured" in the news room of the top floor of the main building and flows downwardly through the various departments until it has finally been transformed into a finished newspaper which emerges at the street level.*

### THE PRESSROOM

The second and third floor make one of the finest and most spacious pressrooms existing and now contains two lines of Wood High-Speed presses with additional space to accommodate two more lines of sixteen units each.

In the present installation one line has twelve units and four folders and the other line has sixteen units with five double folders, or ten single folders.

The press bed plates, weighing 5 tons each, are set on one of the largest concrete slabs ever constructed, which is in turn insulated from the rest of the building by three inches of cork that confines all vibration to the pressroom—its place of origin. The slab carries a total load of twelve hundred tons.

The presses have a top speed of 60,000 complete papers per hour with a folder capacity of 96 pages each. Many special features and several innovations characterize this installation as one of the most modern plants in the country.

### FEATURES OF WOOD PRESSES

All units are equipped with ball bearings at each end of both the type and impression cylinders, which hold the cylinders rigid at all times and preclude all possibility of any back-lash.

Huge seven and one-half-inch printing rollers are used which prohibit "ghosts" from appearing at any time. A "ghost" is the pressman's nightmare. Elimination of the usual ductor roller is effected by using a small roller running in the ink and a pick-up roller immediately above and running in the opposite direction at greater speed.

Automatic lock-up is provided for the plates. After pulling one handle and moving the press into plate position the press is ready for the insertion of the plates. Starting the presses effects the plate lock-up automatically.

Both the type and the impression cylinders are of solid steel and weigh over two tons each, reducing the possibility of damage should a plate slip its lock.

A unique and time-saving device has been applied to the folder cylinder which allows the changing of the cutting rubber in about thirty seconds, a job heretofore taking from twenty to thirty minutes. All folders are interchangeable and a faulty one may be replaced without touching the press mechanism.

### CLINE CONTROL EQUIPMENT

The motor and control equipment was supplied by the Cline

Electric Company and the new Cline Unit Type Drive provides highly efficient operation of the greatest flexibility. There is one 35 h.p. motor mounted on the press substructure for each unit and each folder, or 37 motors in all. With a controller for each folder it is possible to connect as many motors to it as there are units in the desired printing combination. The motors are connected to the press by silent chain drive running in oil-tight casings, which have circulating oiling systems, which is said to be the first installation of its kind.

Each unit has its control station, improved signal lights, paper break switches and automatic sheet severing devices. Changing from one controller to another is effected by merely

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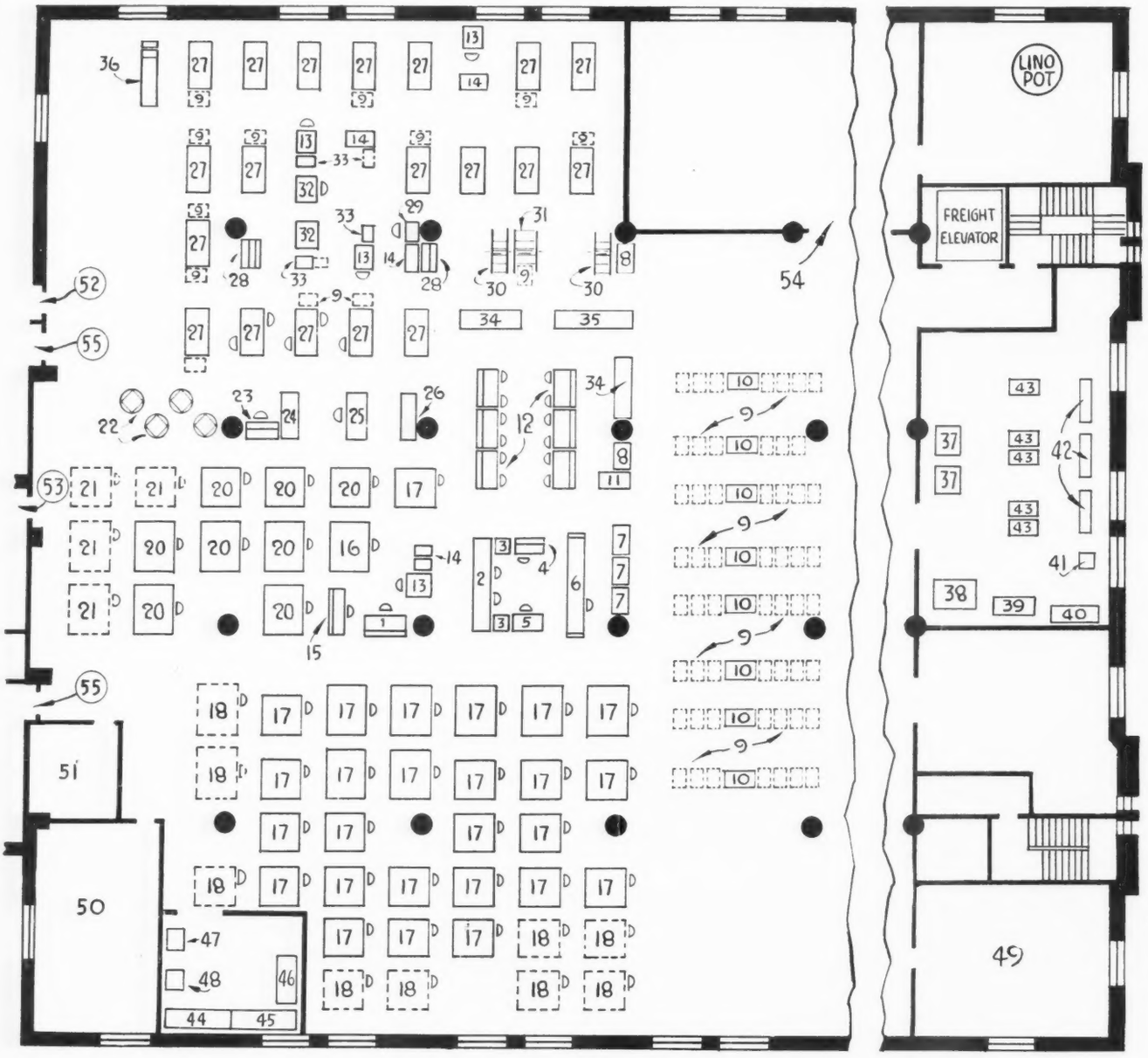


## Key to Layout Sheet, Cincinnati *Times-Star* Composing Room

1—News Copy Desk.
2—Dumping Table.
3—Auxiliary Dumping Cabinet.
4—Electric Proof Press.
5—Electric Proof Press.
6—Correcting Table.
7—Triple-Column Galley Cabinet, News OK.
8—Triple-Column Galley Cabinet.
9—Makeup Truck.
10—News Assembling Table.
11—Makeup Editor's Desk.
12—Proof Readers' Desk.
13—Universal Saw.
14—Galley Cabinet, Strip Materials.
15—Head-Letter Cabinet.
16—Head-Letter Linotype.
17—News Linotype.
18—Future News Linotypes.
19—Linotype Machinists' Work Bench.
20—Ad Linotype.
21—Future Ad Linotype.
22—Linotype Magazine Rack.
23—Rouse Band Saw.
24—Ad Dumping and Storage Table.
25—Ad Foreman's Desk.
26—Cut Cabinet.
27—Single-Tier Ad Assembling Cabinet.
28—Large Letter Cabinet.
29—Rotary Miterer.
30—Ad Proof Press.
31—Page Ad Proof Press.
32—Caster.
33—Matrix Cabinet.
34—Ad Storage Table.
35—Ad Storage Table.
36—Galley Cabinet, Racing Records.
37—Linotype Rule Caster.
38—Monotype Lead-and-Rule Caster.
39—Monotype Giant Caster.
40—Work Bench.
41—Thompson Caster.
42—Elrod Caster.
43—Galley Cabinet, Strip Materials.
44—Machinists' Work Bench.
45—Work Bench.
46—Lathe.
47—Drill Press.
48—Emery Wheel.
49—Mr. Pfalzgraf's Office.
50—Stock Ticker Room.
51—Call Room.
52—Ad Cut Storage Room.
53—To Wash Room.
54—To Stereo Room.
55—To Passenger Elevators.

# Spacing Material Used for Mounting Plates

## *Technical Data is Presented by Mr. Sherman for Use with Composing Room Cut-Mounting System*

By Frank M. Sherman

For a long time composing room employees, especially those engaged in operations involving the composition and make-up of advertisements and pages including cuts of any kind, have been conscious of a tremendous waste of time due to the necessity of justifying wood-mounted halftones, zinc etchings, electrotypes, and nickeltypes, and to the lack of spacing material of the right height to serve also as base on which flat plates of various kinds could be mounted satisfactorily.

This need has been felt in composing rooms doing all kinds of work. In book, magazine, catalogue, and commercial printing plants, where the wood-mounted cut is especially prevalent the loss of time has been particularly heavy. And the problem has not been less important in ad-setting and newspaper composing rooms, where the matter of providing a satisfactory base for unmounted cuts has offered difficulties all its own.

That the development of means whereby spacing material could also be made to serve as base for mounting flat plates of various kinds was at that time considered of the utmost importance is evidenced by the following extract from a talk made by Arthur S. Overbay at the annual convention of the International Trade Composition Association held in Cleveland during November, 1931:

> " . . . Next, and this is most important of all from the equipment standpoint, I see no good reason why there should not be a standard height for all low material. Our leads and slugs are one height, and our quads and spaces are yet another height.
>
> "I can visualize a situation brought about by standardization of these heights to a point where we could assemble slugs, leads, Monotype furniture, and what have you, into one form, all low material being the same height. That height could be based on some system that we could get from the engravers' association, so that we could set up our type pages, make them up with comparative ease, and stick the illustrations onto those type forms with some form of adhesive that would actually hold under trying press conditions. More remarkable engineering feats than that have been brought about, even in our own industry, and, gentlemen, I feel satisfied personally that if that thing could be brought about it would save more time and more cost in our composing rooms than anything that has happened in our industry since the introduction of the typesetting machine."

In voicing this need, Mr. Overbay, a well-known advertising and trade typographer, and president of the Typographic Service Company of Indianapolis, expressed the opinion of thousands of composing room executives and employees throughout the United States and Canada.

At least one manufacturer has provided the means whereby the requirements expressed by Mr. Overbay may be met. For Monotype Giant Caster furniture, Monotype machine-set and machine-cast quads and Monotype strip and piece leads and slugs may all be cast, in the proper molds, of the height desired to serve as base mounting plates of any specified thickness.

With the tremendous increase in the use of illustrations during the past few years, the mounting of cuts becomes a most important detail in the production of type forms for printing and in the setting of advertisements. The use of wood for cut-mounting has never been satisfactory from any viewpoint, for reasons every printer knows. Many substitutes have been tried out also. A solid metal base, soldered onto the flat plates, has met the problem of providing a permanent base for cuts, but this expedient has not saved any time in handling, setting and make-up, and has, in fact, added expense in initial cost and in mortising when the latter has been necessary.

What has been sought for some time, to meet composing-room conditions, is a complete method of mounting flat

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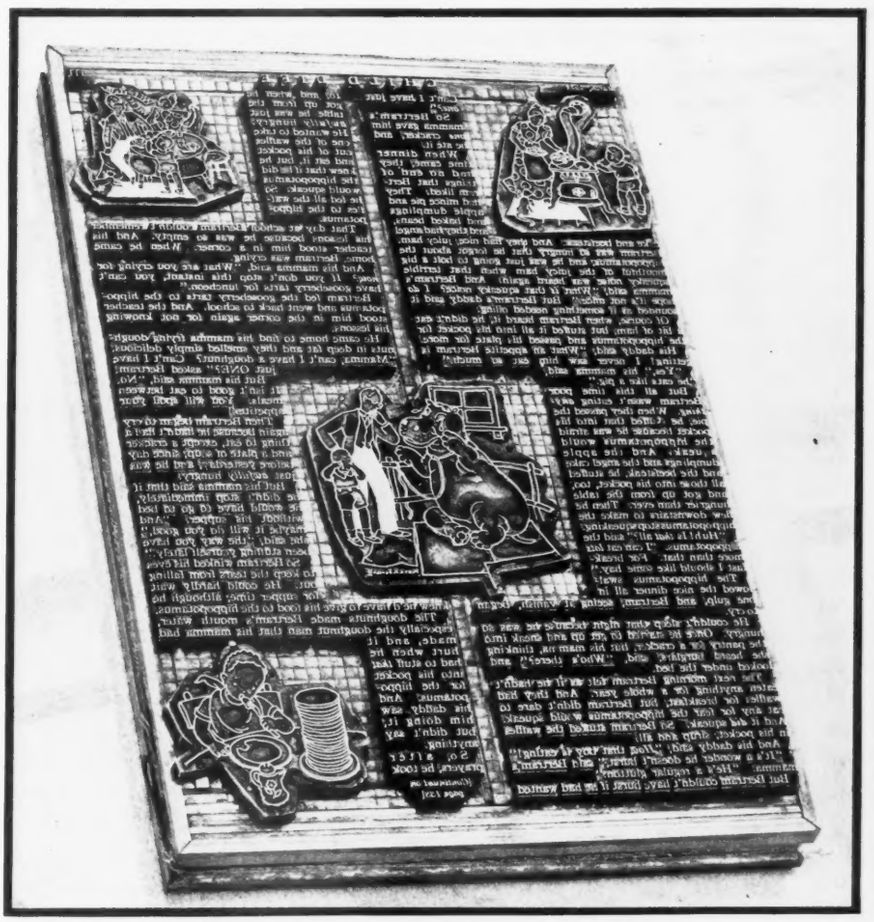


*Illustrating how electrotypes are mounted on machine-set quads of 0.759 in. height. Electrotypers' Nails were used to fasten plates for 300,000 impressions of forms containing pages like this in plant of Rand, McNally & Co., Chicago.*

# Photo-Lithography and Offset-Lithography

## *Which Concerns the Photoengraver and the Printer With the Present Activity in the Offset Field*

*By* FRANK O. SULLIVAN

JUST seven years ago this month, the writer predicted in the following paragraph in his department in another publication. The paragraph is reprinted here and reads as follows:

> "With the coming of new methods, tending to simplify the making of negatives, as well as to give longer life to the printing plate for offset lithography, I am more and more of the opinion that the photoengraver is missing a bet by not keeping in step with the photolithographer. Logically the photoengraver should be in this new industry that is still but a crawling infant; he is equipped in all ways, not only to make negatives, but to make transfer plates if necessary. I have talked with a number of photoengravers throughout the country, trying to convince them of the wisdom of getting into photolithography. Some few are attempting it. There should be many more. In every lithographing center there should be photoengraving establishments which will cooperate with the offset lithographer in making color separation halftone negatives, negatives for black and white work, etc."

That was seven years ago. Today the demand, not only for color separation negatives, but also for complete press plates, far exceeds the supply at this time, and this demand is growing each year. *It is* logical for the photoengraver to create a department for this kind of negative and plate making, and he should be getting busy at it *now*. It was his industry that developed the four-color process plates, and that manner of printing held its supremacy until the advent of the offset press. And, it was not merely the fact that the offset press was a lithographic press, that made its success possible. It was due to its speed in production—every revolution of the cylinder gave a print. Its productive capacity was three to five times greater than the output of the cylinder press, hence its success.

There is no exaggeration in the statement that there is in the mind of every up-to-date printer, the fact that some day soon he will be compelled to install offset equipment as a matter of self preservation. How frequently you will hear a printer say: "I would install an offset press if I did not have to bother with the plate-making end of it." The addition of an offset press in a printing plant, run by a capable pressman, would be a sure thing in many establishments—if the owner was sure he could go to his photoengraver and get all his plates just as he does now for his letterpress needs. Then, all he would have to do would be to put the plate on the press, and with very slight makeready, run off the job.

What addition to a photoengraving plant would be necessary to make plates for the offset press? An offset proofing press, a whirler and a step-and-repeat machine —a total outlay of between $4000 and $5000, with time to pay for the equipment. The photoengraver already has his cameras, vacuum printing frame and developing troughs. It may not be convenient for him to install extra equipment at this time, for we all know that the depression has not only hit the photoengraving industry, but also all other branches of the graphic arts, but that will not prevent him from getting set for the future. The photoengraver, with his present equipment, can do a lot of experimenting in the way of making negatives and original transfer plates. Then, when business improves, he will be ready to embark in the offset plate-making game.

With small offset presses now being built, varying in size from 8½x11 to 19x25 in. paper size, the demand for plates will be greatly augmented within the next few years. The writer earnestly suggests that every photoengraver investigate the possibilities for new business in this field. How frequently you hear one of the members of that craft say: "I lost that job to the offset press, and I have been doing their work for years." There is no necessity for this happening—if he will adapt his plant for the making of plates for the offset press.

The photoengraver has this decided advantage over the photo-lithographer—his knowledge of four-color process work. The average photo-lithographer has yet to learn how to adapt his reproductions to only four colors. The lithographic artist will look at a sketch and decide that he will need a yellow plate, a light blue, a dark blue, a red, a pink, a gray and a buff, and sometimes, before he gets through, the job will be done in seven, eight or nine colors; whereas the photoengraver knows he can do the same job in four colors. In very rare instances he may use a fifth color to snap it up, but no more. Do you then, Mr. Photoengraver, see the wisdom of incorporating the making of offset press plates in your establishment? It is a wise thing to give this due consideration.

Don't overlook the fact that the offset industry is growing by leaps and bounds, and that more master minds are at work in making this process more economical, as well as simplifying the methods, than any other branch of the graphic arts. No other part of the industry has such a complete research department as that conducted by the Lithographic Technical Foundation, Inc., which was conceived in the able mind of Alfred B. Rode, of New York City, and carried on with funds contributed by the lithographing industry, and those allied with it.

# *Still Greater Range . . . for the*

# TWO-*in*-ONE LINOTYPE

TRADE LINOTYPE MARK

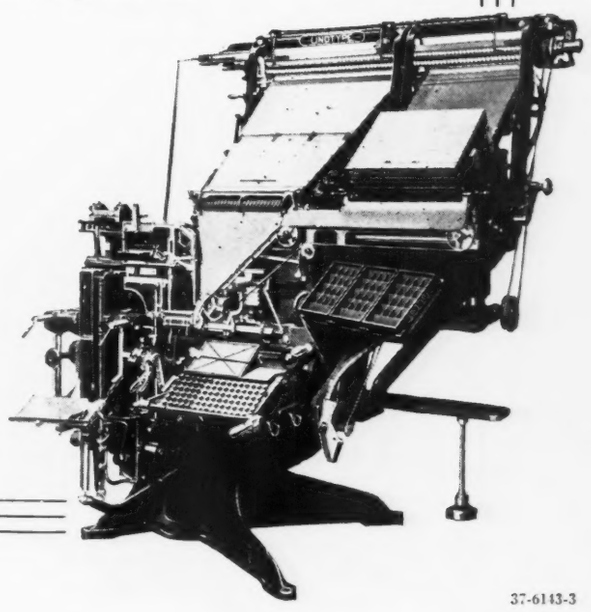
**D**on't you often wish there was at least one Linotype in the shop that would set anything that came along, from a display heading down to a 5-point footnote.

There is such a machine. It is called the "Two-in-One Linotype" because it is a text machine and a display machine in one. Its range has been still further increased, and it can be supplied with a variety of magazine equipment to meet your particular needs.

**72-90 . . .** The Two-in-One Linotype, equipped with a combination of 90-channel (text) and 72-channel (display) magazines, will handle a full range of sizes from 5 point to 30 point and larger condensed faces.

**55-90 . . .** For still larger display, it can be equipped to use the 55-channel layout for the display magazines. This permits the setting of wide 36 point from the main magazines, and condensed faces up to 60 point.

**PLUS AUXILIARIES . . .** The addition of 34-channel, wide auxiliary magazines still further increases the range and usefulness of this versatile machine.



MERGENTHALER LINOTYPE COMPANY, BROOKLYN, N. Y.

SAN FRANCISCO : CHICAGO : NEW ORLEANS
CANADIAN LINOTYPE, LIMITED, TORONTO, CANADA

Representatives in the Principal Cities of the World

Linotype Bodoni Family

37-6143-3

# December Printing Patents

Printed copies of patents are furnished by the Patent Office at 10 cents each. These may be obtained by addressing the Commissioner of Patents, Washington, D. C.

1,888,240. FOUNTAIN CONSTRUCTION FOR PRINTING PRESSES. Arthur J. Munson, Plainfield, N. J., assignor to The Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Nov. 8, 1930. Serial No. 494,211. 13 Claims. (Cl. 101 — 350.)

1. A bed plate adapted to support the frame of a printing press, the bed plate being formed with a recess adapted to serve as a fountain bowl.

1,888,303. METHOD OF PRODUCING INTAGLIO PRINTING FORMS. Kurt Wolfsohn, Schoeneberg, near Berlin, Germany, assignor to Rotophot Aktiengesellschaft fuer Graphische Industrie, Berlin, Germany. Filed Dec. 30, 1929, Serial No. 417,603, and in Germany June 21, 1929. 7 Claims. (Cl. 41 — 43.)

6. In a process for the production of circular intaglio printing forms, the steps which comprise producing a resist photographically upon a plurality of transfer sheet sections whose total effective length along any line is equal to the circumference of the form along a corresponding line, mounting such sections in succession upon the form to form an endless covering, and subsequently etching the whole form simultaneously.

1,888,463. PRINTING PRESS CYLINDER SUPPORT. James Edgar Lee, Grand Haven, Mich., assignor to Challenge Machinery Company, Grand Haven, Mich., a Corporation of Michigan. Filed Oct. 13, 1930. Serial No. 488,276. 7 Claims. (Cl. 101 — 269.)

1. In a device, a horizontal bed having a track portion, a cylinder extending over and spaced above the bed, yieldable means traversably engaging the upper surface of the track portion and rotatably supporting the cylinder to thrust it upwardly, and means traversably engaging the lower surface of the track portion and associated with the cylinder to limit its upward movement.

1,888,549. WEB TENSION CONTROLLING MECHANISM. Curtis S. Crafts, Oak Park, Ill., assignor to Goss Printing Press Company, a Corporation of Illinois. Filed Aug. 28, 1928. Serial No. 302,460. 6 Claims. (Cl. 242 — 75.)

1. A web supplying means including in combination a plurality of horizontally-disposed web roll supporting devices having roll shaft journals, brake mechanisms for the roll supporting devices, openable to permit free access to the journals from above, web-engaging means for controlling the brake mechanism, the means being connected to the brake mechanism by positive connections transmitting the movements of the web engaging means and the brake mechanism to each other.

1,888,659. SHEET FEEDING MECHANISM. William K. Eckhard, Dunellen, N. J., assignor to R. Hoe & Co., Inc., New York, N. Y., a Corporation of New York. Filed Apr. 10, 1930. Serial No. 443,168. 20 Claims. (Cl. 271 — 54.)

1. In a sheet feeder, a reciprocating pusher, mechanism to raise and lower the pusher, a track on which the pusher travels, and means to move the pusher forward and backward on the track; the means including a chain supported on sprockets and operatably connected to the pusher.

1,888,775. BOOK FEEDING DEVICE. Henry Sieb, Hammond, Ind., assignor to W. B. Conkey Company, Hammond, Ind., a Corporation of Illinois. Filed Aug. 11, 1931. Serial No. 556,456. 3 Claims. (Cl. 112 — 21.)

1. A book feeding device adapted to be connected to and operate conjointly with a book stitching machine having means for advancing a group of signatures by a predetermined intermittent motion, and comprising a pusher bar, means for moving the pusher bar at the same speed as the advancing means, and means for retracing the pusher bar to permit of one stitch being taken intermediate succeeding books advanced to the stitching machine.

1,889,353. SHEET STRAIGHTENING CONVEYING MECHANISM. Frank L. Cross, Port Washington, N. Y., assignor to Cross Paper Feeder Company, Boston, Mass., a Corporation of Massachusetts. Filed June 27, 1930. Serial No. 464,224. 12 Claims. (Cl. 271 — 46.)

1. Sheet conveying mechanism having in combination, successively acting high speed conveying surfaces and slow-down conveying surfaces for advancing sheets, cooperating rollers for holding sheets against the surfaces, sheet straightening devices associated with the slow-down conveying surfaces, and means jointly controlling the operative relation of the rollers with the slow-down conveying surfaces and the action of the sheet straightening devices.

1,889,374. METHOD AND MEANS FOR RENEWING INK-REPELLENT SURFACES ON MERCURY PRINTING PLATES. Heinrich Renck, Hamburg, Germany. Original application filed Feb. 15, 1930, Serial No. 428,723, and in Germany Nov. 26, 1929. Divided and this application filed May 5, 1931. Serial No. 535,272. 5 Claims. (Cl. 101 — 147.)

1. A method of renewing the mercury to the ink-repellent parts of mercury printing plates during the use of such plates in printing consisting in delivering the mercury in finely atomized form to the surface of a non-inking roller operating in contact with the plate.

1,889,375. METHOD AND MEANS FOR RENEWING INK-REPELLENT SURFACES ON MERCURY PRINTING PLATES. Heinrich Renck, Hamburg, Germany. Original application filed Feb. 15, 1930, Serial No. 428,723, and in Germany Nov. 26, 1929. Divided and this application filed May 5, 1931. Serial No. 535,273. 3 Claims. (Cl. 101 — 147.)

1. A method of renewing the amalgam-coated surface of mercury printing plates during the printing process consisting in applying to the plate prior to its being inked a watery solution of mercury salts, and immediately thereafter wiping the watery content of such solution from the surface of the plate.

1,889,431. PHOTO-ELECTRIC TUBE. Frederick A. Berg and William W. Harper, Chicago, Ill. Filed July 12, 1929. Serial No. 377,880. 1 Claim. (Cl. 250 — 27.5.)

A photo electric tube having an interior anode coating and a plurality of photo-sensitive cathodes, said cathodes mounted in two groups, and a window in the vessel for each group, each group of cathodes facing its respective window.

1,889,460. STEREOTYPE PRINTING PLATE. Henry A. Wise Wood, New York, N. Y., assignor to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Nov. 18, 1931. Serial No. 575,729. 5 Claims. (Cl. 101 — 375.)

3. As an article of manufacture, a concave stereotype printing plate having inner circumferential ribs on the concave back adapted to be shaved to the desired radius and another set of ribs, alternating with the first set, and projecting from the back of the plate only far enough to insure that they will not be shaved off by the means used for shaving off the first set of ribs.

1,889,513. SHEET DIRECTING MEANS. Albert Broadmeyer, Harrisburg, Pa., assignor to The W. O. Hickok Manufacturing Company, Harrisburg, Pa., a Corporation of Pennsylvania. Original application filed June 10, 1927, Serial No. 197,977. Divided and this application filed Dec. 4, 1929. Serial No. 411,629. 25 Claims. (Cl. 271 — 50.)

1. In apparatus of the character set forth, the combination with a constantly moving and normally inoperative sheet moving means, of means normally inactive for making said sheet moving means operative to move a sheet, controlled by one portion of the sheet that is to be moved for causing said sheet moving means to become operative on another portion of such sheet to move it out of co-action with the actuating means.

1,889,523. SELF-ADJUSTING FEED ROLL. Howard M. Barber, Pawcatuck, Conn., assignor to C. B. Cottrell & Sons Company, Westerly, R. I., a Corporation of Delaware. Filed Dec. 19, 1931. Serial No. 582,064. 3 Claims. (Cl. 271 — 51.)

1. A feed roll shaft and a feed roller unit carried thereby comprising a collar fixed to the shaft, a collar slidable on the shaft, an interposed self-adjusting roller and tension means carried by the fixed collar and yieldingly engaging the slidable collar to frictionally clamp the feed roller between the collars.

1,889,524. SELF-ADJUSTING FEED ROLL. Howard M. Barber, Pawcatuck, Conn., assignor to C. B. Cottrell & Sons Company, Westerly, R. I., a Corporation of Delaware. Filed Dec. 19, 1931. Serial No. 582,065. 4 Claims. (Cl. 271 — 51.)

1. A feed roll shaft and a feed roller unit carried thereby comprising a collar fixed to the shaft, a collar slidable on the shaft, an interposed self-adjusting roller and tension means carried by the slidable collar and yieldingly engaging the fixed collar to frictionally clamp the feed roller between the collars, the tension means including bolts projecting from the slidable collar into the fixed collar, tension adjusting nuts threaded on the bolts and coil springs interposed between the nuts and fixed collar.

1,889,525. SELF-ADJUSTING FEED ROLL. Howard M. Barber, Pawcatuck, Conn., assignor to C. B. Cottrell & Sons Company, Westerly, R. I., a Corporation of Delaware. Filed Dec. 19, 1931. Serial No. 582,066. 8 Claims. (Cl. 271 — 51.)

1. A feed roll shaft and a feed roller unit carried thereby comprising a collar fixed to the shaft, the collar being provided with a sleeve, another collar slidable on the sleeve, a self-adjusting roller interposed between the collars and tension means carried by the fixed collar and yieldingly engaging the slidable collar to frictionally clamp the feed roller between the collars, the tension means including bolts projecting from the fixed collar into the slidable collar, tension adjusting nuts threaded on the bolts and coil springs interposed between the nuts and slidable collar.

1,889,526. SELF-ADJUSTING FEED ROLL. Howard M. Barber, Pawcatuck, Conn., assignor to C. B. Cottrell & Sons Company, Westerly, R. I., a Corporation of Delaware. Filed Dec. 19, 1931. Serial No. 582,068. 4 Claims. (Cl. 271 — 51.)

1. A feed roll shaft and a feed roller unit carried thereby comprising a collar fixed to the shaft, a collar slidable on the shaft, an interposed self-adjusting roller and tension means carried by the fixed collar and yieldingly engaging the slidable collar to frictionally clamp the feed roller between the collars, the tension means including bolts projecting from the fixed collar into the slidable collar, tension adjusting nuts threaded on the bolts, an annular follower slidable on the bolts and engaged by the nuts and a coil spring interposed between the follower and the slidable collar.

1,889,528. SELF-ADJUSTING FEED ROLL. Howard M. Barber, Pawcatuck, Conn., assignor to C. B. Cottrell & Sons Company, Westerly, R. I., a Corporation of Delaware Filed Dec. 19, 1931. Serial No. 582,070. 2 Claims. (Cl. 271 — 51.)

1. A feed roll shaft and a feed roller unit carried thereby comprising a collar fixed to the shaft and provided with a sleeve, another collar slidable on the sleeve and interlocked therewith, a self-adjusting feed roller interposed between the collars, tension means yieldingly engaging the slidable collar to frictionally clamp the roller between the collars, the means including an adjusting nut threaded on the sleeve, an annular follower slidable on the sleeve and interlocked therewith, the follower being engaged by the nut and a coil spring surrounding the sleeve and interposed between the follower and the slidable collar and means preventing rotative movement of the roller with respect to its collars.

1,889,829. PRINTER'S COLLATING STAND. Charles W. Govier, Brooklyn and John W. Reid, Queens Village, N. Y., assignors to Mergenthaler Linotype Company, a Corporation of New York. Filed Oct. 1, 1931. Serial No. 566,206. 14 Claims. (Cl. 276-44.)

1. A printer's collating stand comprising a plurality of superposed type cases supported by and attached to an upright shaft rotatably mounted in a suitable base, the cases being connected together for rotation as a unit.

1,890,267. WEB CONTROLLING APPARATUS. Ernest James Smith, Fleet Street, London, England, assignor to Goss Printing Press Company, a Corporation of Illinois. Filed Jan. 3, 1930, Serial No. 418,379, and in Great Britain Jan 11, 1929. 7 Claims. (Cl. 242 — 75.)

1. Web controlling mechanism for use with printing presses including in combination angularly movable arms for rotatably supporting a web roll and means for tensioning the web as it is drawn from the web roll by the press including a flexible friction belt adjacent to the axis of the arms to bear against the periphery of the web roll, a roller to which the belt is fastened, a weighted arm and gear connected with the roller for turning the roller for maintaining the belt in contact with the periphery of the web roll and means for raising and lowering the angularly movable arms.

1,890,374. CLEANING MACHINE FOR MAGAZINES AND MATRICES. Herman R. Freund, Brooklyn, N. Y., assignor to Intertype Corporation, New York, N. Y., a Corporation of New York. Original application filed Nov. 22, 1928, Serial No. 321,146, and in Germany May 24, 1929. Divided and this application filed Nov. 30, 1929. Serial No. 410,791. 4 Claims. (Cl. 141 — 1.)

2. Apparatus for interiorly cleaning the open-ended magazine and therein slidably contained matrices of a line casting machine, comprising a tank to contain a treating fluid, matrix confining members to extend over and engage the open ends of the magazine to support it and its contained matrices fixedly away from the walls of the tank and to engage and prevent the escape of matrices from the magazine, the members providing passages between them and the respective ends of the magazine for the flow of the treating fluid through the magazine, and means pivotally supporting the tank and the magazine for successive inversions about an axis transverse to the length of the magazine to cause the matrices in the magazine to slide alternately toward opposite ends of the magazine, while resting alternately on the top and bottom plates of the magazine.

1,890,467. SHIPPING-CONTAINER FOR PRINTING PLATES, ELECTROTYPERS' MATS, ETC. Walker W. McCarroll, New Haven, Conn. Filed Nov. 20, 1930. Serial No. 496,880. 5 Claims. (Cl. 206 — 60.)

1. A shipping-container consisting of a pair of marginal-guard bars respectively located against the opposite edges of the goods to be shipped and organized therewith to form a unitary inner package; an outer casing; and a pair of complementary marginal-guard bars secured to the casing and extending at a right angle to the marginal-bar first mentioned to complement the same in protecting the edges of the contained goods.

1,890,760. PRINTING PRESS. Henry R. Trotter, Chicago, Ill., assignor to Hacker Manufacturing Co., Chicago, Ill., a Corporation of Illinois. Filed Apr. 13, 1932. Serial No. 605,046. 4 Claims. (Cl. 101 — 357.)

1. In a printing press, an impression cylinder, a reciprocating form carrying bed, one movement of which is a printing stroke and the other a non-printing stroke, a form inking roller, inking means into and out of contact with which the form inking roller is movable, and means automatically operable at the end of each stroke of the bed to move the form inking roller from form inking position into contact with the inking means.

1,890,858. PRINTER'S ROLLER. Herbert James Lowe, Galesburg, Ill. Filed Apr. 4, 1931. Serial No. 527,807. 2 Claims. (Cl. 91 — 67.8.)

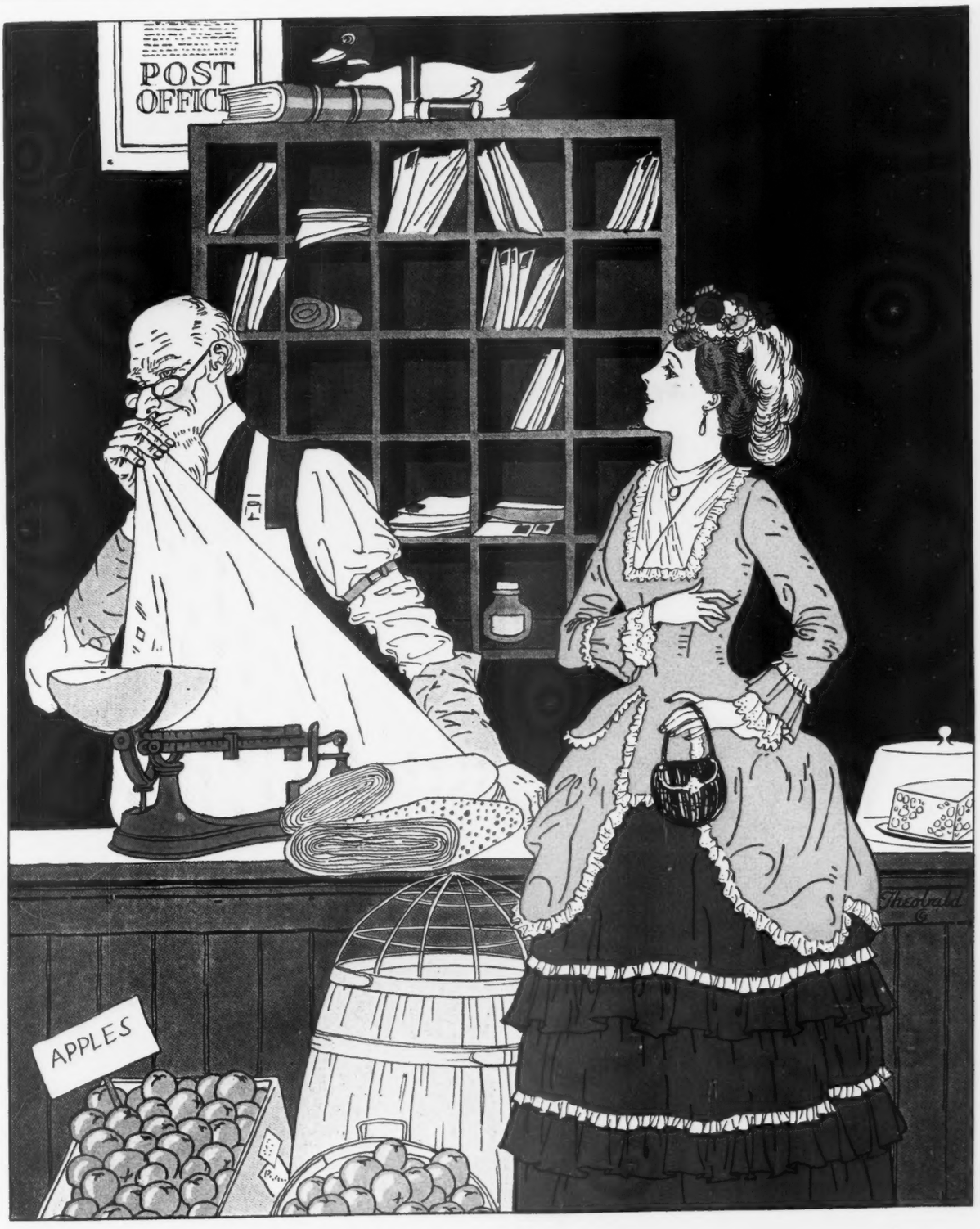
1. A roller including a one-piece solid core, a split wooden cylinder surrounding and secured to the core, strips of cork wrapped spirally about and affixed to the cylinder, and an outer covering of fabric affixed to the cork.

1,891,075. TYPOGRAPHICAL COMPOSING MACHINE. William Ackerman, Towners, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Sept. 30, 1930. Serial No. 485,466. 20 Claims. (Cl. 199 — 20.)

1. In a keyboard mechanism for typographical composing machines, the combination of a key-controlled operating member, two actuating members, two permanently connected motion transmitting members arranged there-between, one of the members being arranged in constant operative relation to the key-controlled operating member, and means for establishing an operative relation between either of the motion-transmitting members and the corresponding actuating member.

1,891,158. TYPOGRAPHICAL CASTING MACHINE. John H. Hilpman, Hollis, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed June 10, 1930. Serial No. 460,123. 14 Claims. (Cl. 199 — 52.)

1. In a slug casting machine, the combination of a mold apparatus adjustable to provide mold slots of different lengths, an ejector adjustable in width to correspond to the selected mold slot, power devices for operating the ejector, means controlled by the adjustment of the mold apparatus for locking the power devices out of action, and means controlled by the adjustment of the ejector for effecting the release of the power devices.




# IDEAL ROLLERS

ECONOMY IN PRODUCTION COSTS—
THE BASIS OF PRINTING PROFITS

# EXACTNESS

is the demand of this progressive era. In striking contrast are the days of the old-time general store, when the yard varied according to the length of the clerk's nose.

Today standards of measurement have progressed to the point where it has become necessary to develop special gauging devices for the measurement of soft, resilient materials in thousandths of an inch, so that your rollers may be exact in size, concentric and perfectly cylindrical.

Think what an important factor this is in reducing vibration, friction and wear, in addition to the advantages of perfect ink distribution, with your presses operating at maximum speeds.

These features of Ideal (built to your requirements) Rollers are but a few of the many points worth considering by plant executives who are interested in holding down production costs and still producing high-quality presswork.

Telephone today for an Ideal Roller engineer to inspect your roller equipment; he may be able to point the way to real economy in your plant—and it will not obligate you in the least.

IDEAL

## SALES OFFICES

**CHICAGO**
2512 West 24th Street
Telephone, Lawndale 1995

**BOSTON**
470 Atlantic Avenue
Telephone, Hubbard 6840

**CINCINNATI**
519 Main Street
Telephone, Main 7250

**NEW YORK (Long Island City)**
22nd Street and 39th Avenue
Telephone, Stillwell 4-4387

**CLEVELAND**
1374 East 12th Street
Telephone, Main 4353

**DETROIT**
222 West Larned Street
Telephones, Randolph 7818-7819

**MILWAUKEE**
104 East Mason Street
Telephone, Broadway 2596

**PHILADELPHIA**
521 Vine Street
Telephone, Market 4096

**ST. LOUIS**
1913 Washington Avenue
Telephone, Chestnut 6510

See reverse side

## Spacing Material Used for Mounting Plates

*(Continued from page 11)*

printing plates as they are made up in pages which will meet these mechanical requirements:

A base which can be assembled rapidly and easily combined with type in the make-up of pages.

A base on which plates can be adjusted easily for position and register.

A base absolutely accurate in point size, height and length.

A base providing a solid and rigid foundation which will stand up under the most extreme pressures of stereotyping, electrotyping, or printing.

A means of attaching the plates to the base securely for proofing, for plating, or for printing direct from the form itself on flat-bed or platen presses.

In addition to these mechanical requirements, any base used for mounting cuts should be conveniently available in necessary sizes and quantities, and the cheaper it can be made and stored the better.

The quest for an accurate and dependable cut-mounting method has been one of the factors bringing about a standardization of thickness of the several kinds of unmounted plates now generally used in the printing industry. The standards now generally recognized and followed by photo-engravers and electrotypers in the manufacture of unmounted flat printing plates are as follows:

| | |
|---|---|
| ENGRAVINGS | |
| Halftones | 0.065 inch thick |
| Zinc Etchings | 0.065 inch thick |
| ELECTROTYPES | |
| "Patent Base" Plates | 0.154 inch thick |

The requirements of different branches of printing and publishing, and the personal preference of those in charge of mechanical departments in printing and newspaper plants, make it necessary that any base used for mounting cuts must be provided in several different heights. While all Monotype quads, spaces, leads, slugs and furniture, intended for use as base in mounting cuts, can be cast of any height desired, in the proper molds, the following heights have been adopted as standard for use with the different standards for thickness of plates:

| | *Thickness of Plate* | *Height of Base* | *Kind of work* |
|---|---|---|---|
| For Halftones and Zincs | 0.065″ | 0.853″ | For all purposes |
| For "Patent Base" Electros | 0.154″ | 0.768″ | Mostly newspapers |
| For "Patent Base" Electros | 0.154″ | 0.763″ | Mostly newspapers |
| For "Patent Base" Electros | 0.154″ | 0.759″ | Letter-press printing |

*Original size of this form was 9x21 in. Cuts mounted on Giant Caster furniture and hand-set quads, spaced out with leads and slugs—All 0.759 in. high. Plates mounted with drive screws for 25,000 run.*

Now let us see just what the availability for cut-mounting of these various materials means in practical operation:

We will first take the various classes of work in which electrotypes are used in pages and machine-set type predominates. This will include most catalogs, publications, books, etc. In making the layout for the pages the space to be occupied by each plate will be indicated exactly. The Monotype keyboard operator will set the type for each page so that the space to be occupied by the plate will be filled with quads when the type is delivered by the Monotype caster. These quads will be of the recommended standard height of 0.759 in. for mounting electros.

There may be some pages in the same job which are set by hand and in which plates are also to go. These plates will be mounted on hand-set quads of any desired size or on slugs or Giant Caster furniture which have gone into the pages as spacing material, and all of 0.759 in. height—the same as the machine-set quads.

Here we have an entire job, consisting of both machine-set and hand-set pages, in which all plates are mounted on quads, leads, slugs or metal furniture of the same height, which also serves as spacing material, and all assembled and justified as each page was set.

The page from "Child Life," printed by Rand, McNally & Co., Chicago, a photographic reproduction of which is printed herewith, shows just how Monotype machine-set quads and spacing material of the same height serve as base for mounting electrotypes. It is easy to estimate the saving in time in putting together one page like this when compared to the work required if the cuts had been mounted on wood and justified in the page. The press make-ready also requires much less time, because the quads are all of an exact height and the plates are of an exact thickness.

Two hundred and fifty thousand impressions are secured regularly in the plant of Rand, McNally & Company from pages just like this one. Cuts mounted on either machine-set or hand-set quads are safely and securely mounted by using the standard electrotypers' nail, approximately ½-in. long. These are driven in and "set" after the form has been securely locked.

Also reproduced is a photograph of a section of a broadside, the original of which was 27 in. wide and 12 in. deep. The plates are mounted on Giant Caster furniture and Monotype-cast hand-set quads, justified with Monotype leads and slugs, all on the same height—0.759 in.

The base was first assembled as spacing material with the type, the whole making up a compact form, and locked in a

chase ready to go on the press. Then the unmounted plates were placed in position and securely mounted. The job then went on the press for a 25,000 run.

If the plates shown in these two illustrations had been halftones or zinc etchings there would have been no additional trouble, for in that case all machine-set and hand-set quads, the leads, and slugs and Giant Caster furniture would all have been 0.853 in. in height, to accommodate the 0.065 in. thick plates—this being the standard height of base for mounting these plates.

In setting advertisements in newspapers, ad shops, trade plants, etc., the same methods are used: The quads, leads and slugs used as spacing material, and which will later form the base for the cuts (electros or shells), are all of the same height. In newspapers the height used will not be the same as in composing rooms making up forms for letter-press printing, where an allowance of approximately 0.005 in. is made for make-ready. Some newspaper executives want "low" material of 0.763 in. height; others want it to be 0.768 in. "High" material of 0.863 in. is accepted as satisfactory in practically all plants to mount halftones and zinc etchings. Whatever height is selected as desirable can be secured on the Monotype, and all quads, leads, slugs and Giant Caster furniture can be made of that particular height in the proper molds.

When the ad or page has been assembled and all corrections in type lines have been made, the plates are placed in position on the spacing material (which now becomes the cut-mounting base) and then fastened securely in place.

If the ad or page is to be electrotyped, the plates are fastened to the base with barbed electrotypers' nails ½ in. long. If it is to be stereotyped, the plates may be "boxed in" with "high" slugs on each of the four sides, or may be laid in position on the base and not fastened thereto, as experience has shown to be best in such cases.

"News" and other cuts which go into newspaper pages are treated in the same way as plates in ads. Giant Caster furniture, slugs and leads of proper height are used as base for mounting these cuts.

Under the Monotype method of mounting cuts, when setting type inside mortises, square, circular and irregular contours, the space to be occupied by the plate is filled with quads or other spacing material assembled when the type is set. The plate is then placed in the position it is to occupy on top of the assembled spacing material.

When forms containing plates mounted on Monotype base are to be sent to the foundry for plating or to be put on a proof press for the taking of proofs, a few electrotypers' nails, judiciously placed, will serve to hold the plates securely in place. Or, in case it is preferred, the plates may be secured to the base material by glue. Either of these methods of mounting will suffice for mounting plates for plating or proofing.

For plates included in pages or forms which go on a press for direct printing, a more secure and permanent anchor is required. These plates are first properly positioned and fastened to the furniture or slug base by tacks or glue. When the plates have been properly positioned and the page or form is locked up ready to print, they are more securely fastened with drive screws. For mounting 0.065 in. thick halftones and zincs of 0.154 in. thick electrotypes, a No. 0x¼ in., type "U," hard metallic drive-screw is used.

Holes are first drilled through the plate into the mounting base and the hole countersunk, all in one operation, using a combination 1/16 in. drill and 60-deg. countersink. Then a "loaded" (magnetized) flat-faced (⅛-in.-across-face) drift-punch is used to drive the drive-screw into the plate and base. As many drive-screws are used as good judgment dictates. The drive-screws firmly hold the plate to the base while the form is being run on the press. When the form is ready to break up, the drive-screws are removed and the plates lifted. Both 0x¼-in. drive-screws and the 1/16-in. steel drill with 60-deg. countersink are standard, and can be purchased in any well-stocked hardware store.

Following are listed the various Monotype machine products which are used as base for mounting cuts:

*Machine-Set Quads* are keyboarded and cast with text-matter on the typesetting machine, the space to be occupied by the illustrations being filled with quads of the correct height for mounting electros, halftones or zincs, etc.

*Hand-Set Quads* of all sizes are cast on any of the three type-casting machines: 4 to 36 point on the type-caster; 6 to 48 point on the Monotype-Thompson Type-Caster; 14 and 18 point solid and 24 to 72 point cored, on the Giant Caster.

*Leads and Slugs* in all sizes from 1½ to 12 point are cast on the Type-and-Rule Caster, 2 to 12 point on the Junior Material Maker, and from 1 to 18 point on the Material Making Machine.

*"Precision" Metal Furniture* is made on the Giant Caster —solid in 14 and 18 point; cored in 24, 30, 36, 42, 48, 60 and 72 point sizes. All point sizes can be cast to any length desired.

## Letters to the Editor

### WORK SCHEDULE SUGGESTIONS

Washington, D. C., Dec. 15, 1932.

The article in the December issue "Controlled Maintenance Schedule for Line-Casting Machines" by Leon A. Link, is very similar to my system, which I have been using for some years, as you know, and which has been copied and used in many offices in the United States. The article by Mr. Link is a splendid one and covers many points in the maintenance of line-casting machines.

There are two points I would suggest might be incorporated in Mr. Bloomburg's system which I have found very beneficial. The first is that, under the line "Clean all plungers and wells," I use the line "Clean plungers, wells and *holes* in wells." It is of as much importance to clean these metal intake holes as it is to clean the plungers.

The second point is in relation to keeping the lines type high (0.918 in.). My method is to have the machinist who comes on at 6 p. m. tighten the mold cap clamping screws on all 7-point and 5½-point molds. They are used the most, and if he finds any of the screws loose on any one mold he takes the liners out, cleans them and the mold before tightening the screws. Formerly we had considerable trouble keeping the lines type high and were constantly adjusting back knives, molds, etc. Now, with this method, that work has been reduced to a minimum and the lines are always type high. Another thing I may mention—I use regular Linotype back mold wipers. They are treated once a week with mutton tallow and I find back squirts are reduced amazingly as the backs of the molds are kept extremely clean.

Yours very truly,

ALEXANDER GORDON, *Chief Machinist, The Evening "Star."*

## Bristol Opens British Factory

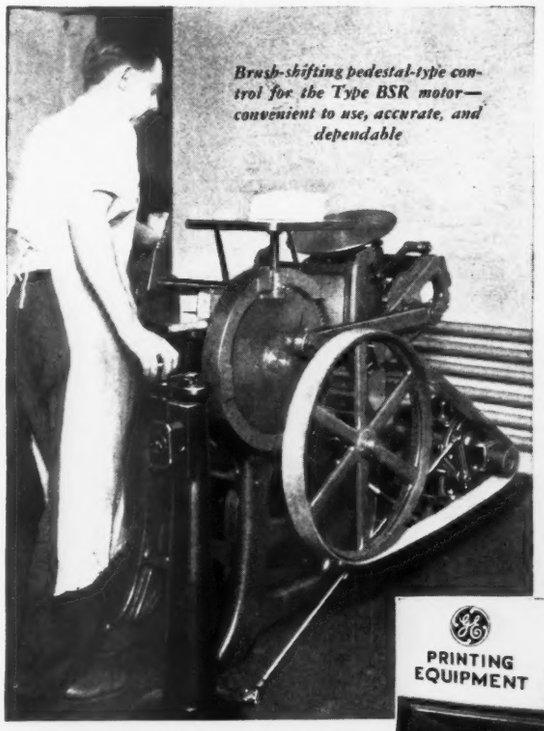
The Bristol Company of Waterbury, Conn., has announced the establishment recently, of a factory at London, England, under the name of Bristol's Instrument Company Limited. The plant is located at 144 Pomeroy Street, New Cross, London, and consists of an office building and a new two-story factory building of modern construction. The factory is completely equipped with machinery, tools and testing equipment, and with British employees especially trained and skilled in the art of instrument making. It is prepared to manufacture and service the complete line of Bristol's indicating, recording and controlling instruments.

# *If Your Power Service Is Single-Phase*

## Here's what the G-E TYPE BSR MOTOR will do for your job presses

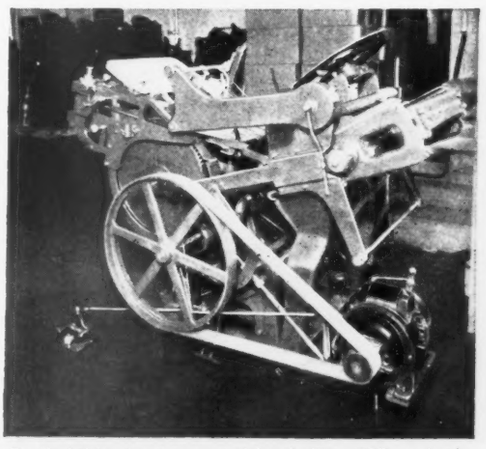
GENERAL ELECTRIC'S Type BSR single-phase brush-shifting motor has a wide speed range even at light load; it enables you to obtain exactly the speed you require for the particular job, when running light or when speeding up production. Its speed control over this range is obtained by shifting the brushes; thus it will help you economize. Its control is simplicity itself: a dependable, pedestal-mounted controller which, by means of a calibrated dial, gives ready indication of speed and permits you to save time and material when resetting for register work. This motor may also be governed where desired by a simple, reliable foot-type controller. Either type may be placed withinconvenient reach of theoperator.

Information about the many features and advantages of Type BSR motors and control is available through a G-E office near you; or address General Electric Company, Schenectady, N. Y. Sales and engineering service in principal cities.



*Brush-shifting pedestal-type control for the Type BSR motor—convenient to use, accurate, and dependable*

All the facilities of General Electric swing into action to give you the best when you open the door of the G-E Printing Equipment Section. Proved engineering service; sound equipment values; motor and control equipment from one manufacturer; service shops, warehouses, and sales offices from coast to coast—all are represented there, ready to serve. Whatever type of press you have, whether you operate on a-c. or d-c. power, General Electric can supply you with dependable electric equipment.



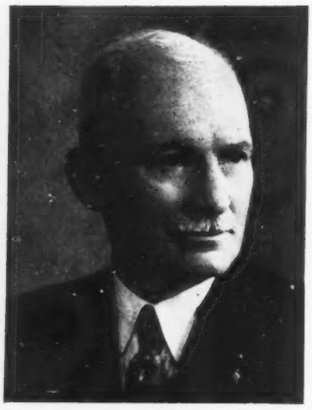
*Brush-shifting foot-type control for the Type BSR — simple, easy to place where you want it, and reliable*

200-646

# GENERAL ELECTRIC

# Composing Machine Engineer Dies

***Was Designer of Intertype, Also Monoline Machine Patent Rights of Which Brought $1,250,000***



*Wilbur S. Scudder Passed Away on December 10 at the Home of His Daughter in Brooklyn, N. Y. Active and Prominent Engineering Career Brought to a Close.*

WILBUR STEPHEN SCUDDER, supervising engineer of Intertype Corporation and composing machine engineer of international repute, died on December 10, 1932, at the home of his daughter in Brooklyn, N. Y. For the past three years he had been in failing health and had spent much of his time in Europe and in Florida.

Mr. Scudder was born in Galesburg, Michigan, January 19, 1859. He learned the toolmaking trade and gained expertness in factories making sewing machines, watches and typewriters. In 1886 he became superintendent of the factory of the Crandall Typewriter Company, of Groton, New York, now the Corona Typewriter Company, and a year later was engaged by Ottmar Mergenthaler to assist him in developing the Linotype machine in the Baltimore factory.

When the Linotype factory was established in Brooklyn, in 1888, Mr. Scudder became the superintendent. He resigned in 1892 to devote his time to the invention and development of another composing machine, the Monoline, being backed in this work by a company in which L. S. Hine, a former president of the Mergenthaler Linotype Company, and the executors of the estate of Oswald Ottendorfer, founder of the *Staats Zeitung*, of New York, held controlling interest. The Monoline machine was manufactured successfully for many years, after which it was bought by the Mergenthaler Linotype Company. Some of the Monoline machines are still doing duty in Germany. The Industrial Museum in Munich has a Monoline in its exhibit of composing machine development, and Mr. Scudder was much amused when on a recent visit to the Museum, one of the officials explained the merits of the machine to him.

Mr. Scudder's greatest achievement was the design of the Intertype. Engaged for this task in 1911, by the late Herman Ridder, he brought to his new work a ripe experience.

His devotion to the Intertype was the dominating emotion of his business career; and as a result of his intense concentration upon his work, he achieved an international reputation as one of the world's best-informed engineers in the composing machine art and in the patents applicable thereto.

Despite a life of intense concentration, Mr. Scudder found time for many warm friendships throughout the printing and publishing field, both at home and abroad.

## Named Mechanical Chief

PUBLISHER JOHN F. ROLFE has announced the appointment of Bernard F. Garrity as mechanical superintendent of the Hartford (Conn.) *Times*. In commenting upon the appointment Mr. Rolfe said: "Mr. Garrity has a forceful, congenial personality, perfect health, and demonstrated ability and thoroughness. He also pointed out the strength of *The Times* organization by citing that during his almost four years with *The Times*, he has never had to go outside to make an important promotion, a fact which he said gave him much satisfaction.

Bernard F. Garrity, newly appointed mechanical superintendent of the Hartford *Times*, for four years was chairman of the printers' chapel. He gained a reputation as a strong champion of his craft. Moreover, his relations with his employers have always been pleasant.

Mr. Garrity was born in East Hartford in 1895, a son of the late David J. Garrity, for many years a member of *The Courant's* composing room staff.

At 15, he went to work on *The Courant*. During the world war he served with Dr. Otto G. Wiedman's medical corps. In 1921 he came to *The Times* and about a year ago was appointed composing room foreman. He served as a delegate to the I. T. U. convention in Charleston in 1928.

*Bernard F. Garrity, Newly-Appointed Mechanical Superintendent of the Hartford (Conn.) "Times."*

Mr. Garrity is married and lives in South Windsor.

Daniel J. O'Brien, since Mr. Garrity's new appointment, has been acting foreman of the composing room on the day side. Adrian J. Tyler is in charge of the night side.

The Hartford *Times* is one of the 16 Gannett Newspapers. In addition to Mr. Rolfe, the publisher, the principal executives are Francis Murphy, business and advertising manager, C. C. Hemenway, editor, and Ward Duffy, managing editor.

# What has the USER to say about Goodyear Blankets ?

One set of Goodyear Blankets has printed 24,000,000 papers at a cost of $135.00.

●

Three sets of competitive blankets printed 24,000,000 papers at a cost of $501.00.

●

They bolster very little and the print in general, especially half-tones, seems to be very much better.

●

We have been using Goodyear Blankets for the past seven years and are able to use two sets of felt blankets over one set of Rubber Blankets.

●

We have had and are having good results from Goodyear Blankets and intend to keep on using them.

●

Their printing quality and durability make them a very economical blanket to use.

## Read These Extracts From Letters Received

A double spread always works easily without the usual perforating in the middle.

●

They have proven to be as represented by you.

●

I intend, on our next complete change of blankets, to buy Goodyear.

●

I have no record available of the number of impressions but they are giving excellent service.

●

One set on our Hoe Press has printed 14,000,000 impressions and is still in good condition.

●

Our rule prevents testimonial letters but we gladly answer inquiries.

●

It is apparent that leader marks have no effect on these blankets.

●

We get exceptionally good print with the minimum of impression.

●

After 7,000,000 impressions they show so little wear, I expect them to last longer than others we have used.

●

Additional units have been covered with Goodyear Blankets because we like them very much.

●

I have used them over a year and run over 30,000,000 impressions.

**GOODYEAR RED TOP FELT BLANKETS • GOODYEAR RUBBER UNDERPACKING**

**If you are not a user of these blankets, let us tell you more about them — also GOODYEAR RUBBER INK ROLLERS. Just drop a line to the Goodyear Tire and Rubber Company, Akron, O., or Los Angeles, Calif. Branches in Principal Cities.**

THE GREATEST NAME IN RUBBER

**GOODYEAR**

**NOW YOUR PRESSES CAN BE EQUIPPED COMPLETELY WITH GOODYEAR PRODUCTS**

# Get Wood Hand Mitts They're Free!

EVERY man who sees Wood Hand Mitts wants a pair for himself. They are practical hand protectors — and they are appreciated.

Your department may have a supply now regardless of the kind of dry mats you are using. This is a WOOD service in the interest of smoother-running production in the stereo room.

*Use the coupon* for free mitts or free sample lot of Wood Dry Mats, or both. Clip it now before you forget it.

Paper_____

City & State_____

By_____

√

____Trial Case (500 mats) or____Samples

____Standard 12c____Special 15c____Metropolitan 18c

____Conditioned or____Coated

Shrinkage desired_____

Number of Hand Mitts wanted_____

WOOD DRY MATS
ALWAYS UNIFORM

WOOD

FLONG CORPORATION
HOOSICK FALLS, N.Y.


## Splendid New Home for the Cincinnati *Times-Star*

*(Continued from page 10)*

throwing a switch which makes a change of page combination a matter of seconds.

### THE STEREOTYPE FOUNDRY ROOM

On the press floor and running parallel along the north side is the large foundry room equipped with two Wood Automatic Autoplates, two juniors and two 8-ton metal pots, one with G. E. units and the other with Westinghouse units. Three shavers of the improved type are employed and each shaver delivers the finshed plate to the conveyor automatically. Electrically operated stops on the main line of the conveyor prevent plates coming out of any shaver from bumping into plates on the main conveyor. The stereotype room is also equipped with a separate 3-ton pot and caster for double truck plates as well as a 2-page saw, trimmer, shaver, and finishing block.

### REEL ROOM AND STORAGE SPACE

Directly below the press floor is the reel room and paper storage space sufficient for three days' needs. Each unit has its own paper reel arranged for three rolls and each reel is equipped with ball bearing spindles which eliminate the customary reel shafts.

Each roll stand is equipped with two motors, one for margin adjustment and one for rotation of the spider arm for loading the paper directly from the dollies. Each motor is operated through an automatic controller from push-button stations for forward and reverse direction.

### CLINE AUTOMATIC ELECTRIC TENSIONS

Cline Automatic Electric Tensions are employed and make possible high-speed operation with a minimum amount of paper waste. Each reel has a tension device which is primarily a set of wide straps bearing frictionally on the roll of paper being drawn into the printing unit. They are connected to the floor through springs and at the top connected to a cam on a common shaft which in turn is connected to an electric motor. Current is impressed on this motor during the entire run and as long as the current value remains the same the tension remains constant. These tension units are interlocked with the press control in such a way that when the press is decelerated from any running speed there is an additional amount of tension put on the roll automatically to keep it from running ahead. Likewise, when the press is stopped with the emergency button a great tension is put on the rolls automatically and prevents the roll from running ahead. Each

### BEST MAGAZINE RECEIVED

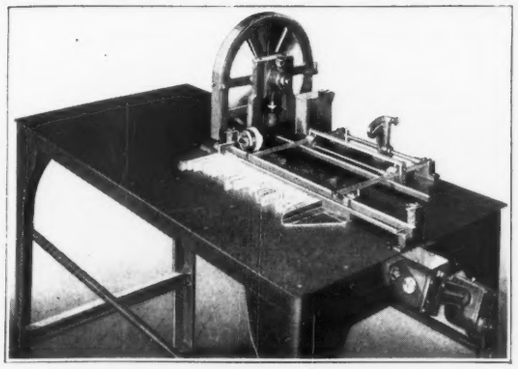
New York, N. Y., November 14, 1932.

Printing Equipment Engineer,
Cleveland, Ohio.

Gentlemen: Having received PRINTING EQUIPMENT ENGINEER for the past two years, I would like to congratulate the personnel for the wonderful strides made in that time. I have talked to many in the City of New York who receive it, and they all agree that for mechanical and advertising information it is the best magazine they receive.

Very truly yours,

L. H. CONLEY,
*Superintendent, Stereotype Dept.*
*New York World-Telegram.*

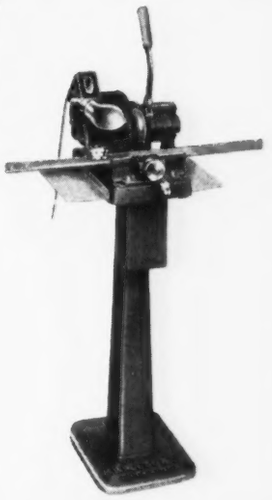


*Congratulations to the*

# Cincinnati Times-Star

***May you live long and prosper in your beautiful new home!***

As might be expected, the Cincinnati Times-Star was one of the first to appreciate the value of and to install the ROUSE Band Saw and the ROUSE Vertical Rotary Miterer and have profited from their use for several years.



The ROUSE Band Saw and the ROUSE Vertical Rotary Miterer have revolutionized the cutting of ad-slugs and spacing material and the mitering of Borders and Rules in hundreds of newspaper composing rooms, and they will revolutionize this work in your composing room also, if given a chance.

These machines cut ad-slugs and miter rules in a fraction of the time required by other methods.

*If you would like to reduce your page costs to the limit, eliminate wasted time and rid yourself and your men of the worry and dread of the "dead line," write for full information to*

**H. B. ROUSE & CO., 2214 Ward St., CHICAGO**

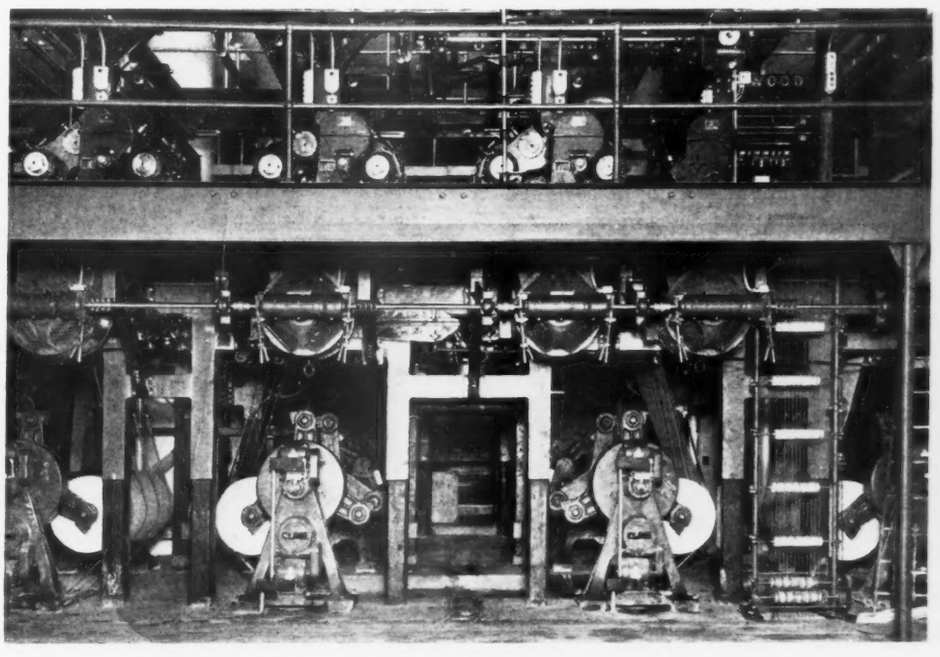

tension controller has an indicating light which advises when a paster is coming through from the reel room.

CONVEYORS RUN DOWN TO MAILING ROOM

The press and reel room are unusually free from obstructions and one is immediately impressed by the spaciousness permitted because the conveyors run *down* to the mailing room rather than *up* and *over* the presses as in most installations. The conveyors are not visible to the casual observer.

The mailing room on the first floor of the building is equipped with special metal tables, each containing an endless belt conveyor upon which bundles of papers are carried to the chutes running down into the garage to the trucks. There are five such tables, each fifty-six feet long exclusive of the tail leading into the chutes. The newsboy delivery is at the front end of the mailing room entered through a special entrance. Also on this floor is the newboys' recreation room and the job printing department.

*Continued on page 23*



*Sectional view of part of basement and pressroom in the new Cincinnati "Times-Star" building, showing the new Cline drive control stations and the Cline tension control stations located on the power side of one of the new Wood presses, together with reels, track and roll transfer tables. Also can be seen the motor sprockets connected by chain drive to the press cylinder sprockets and the motor which is connected by chain drive to a folder unit.*

*In this picture may also be seen the handles for disconnecting the motors from the units while still permitting the shafting to be connected to the adjacent motors and the clutch for the purpose of braking the shafting so as to determine the makeup of the press.*

# THE CINCINNATI TIMES-STAR PLANT

## *The Last Word in Plant Equipment*

### Of course they use Cline correlated Unit Press Drives and Automatic Electric Web Tensions, also Cline auxiliary equipment throughout

#### PRESS ROOM

**Cline Unit Type Drives.** Motors for each unit that may be operated in selected combinations with folders to give any number of pages.

**Quick-acting one-man lifts** and **Slide Poles** between Reelroom and Pressroom.
Special non-skid Pressroom floor.

#### REEL ROOM

**28 Reels** each having a capacity of three 40″ rolls with electric control for loading, and pressroom control for margin adjustment. Quick-acting chucks.

**Cline Automatic Electric Torque Motor Tensions** for high speed presses.

**Cline narrow gauge track,** turntables, etc.

**Paper Dollies. Reel Loading transfer cars.**

#### PAPER STORAGE

**Cline automatic controlled roll elevators and lowerators.**

**Cline automatic controlled Tiering Machines** for delivering roll to proper aisle and level.

#### STEREOTYPE ROOM

**Cline Plate Droppers and Conveyors.**

**Cline Special Automatic Conveyor** for delivering plates to presses.

**Cline Motor and Control equipment for:** Automatic Autoplates—Automatic Finishing Machines—Electric Matrix Dryers and Formers—Electric Heating Units and Control for Stereotype Metal Pots.

#### PHOTO-ENGRAVING DEPARTMENT

Electrical equipment complete, including camera lamps.

#### COMPOSING ROOM

**37 Cline Linotype Drives. Monotype Drives.** Auxiliary machinery motors.

#### MAIL ROOM

**Combination Mail Tables and Conveyors. Bundle Chutes.**

*But not the least interesting to the Publisher was the Cline service of relating the mechanical plant to the newspaper requirements and the building. An inspection will prove that the design is right.*

## *Again* . . . QUALITY-NAME . . . SERVICE-FAME

## CLINE-WESTINGHOUSE

CLINE SYSTEM — CLINE ELECTRIC MFG. CO. CHICAGO — QUALITY NAME SERVICE FAME — CLINE WESTINGHOUSE

# CLINE ELECTRIC MFG. CO.

MAIN OEFICE: Conway Building, 111 W. Washington St., CHICAGO, ILL.

EASTERN OFFICE
The News Building
220 East 42nd Street, New York City

WESTERN OFFICE
First National Bank Building
San Francisco, California

BURGESS CHROME MATS

THE

CINCINNATI TIMES STAR

USES

BURGESS CHROME STEREOTYPE MATS

Burgess Chrome Mats enable most papers to secure better printing of half tones and solids, greater efficiency and dependability than from any other dry mat on the market

Interested publications may secure information regarding Burgess Chrome Mats by writing

BURGESS CELLULOSE COMPANY

FREEPORT, ILLINOIS

BURGESS CHROME MATS

BURGESS CHROME MATS

BURGESS CHROME MATS

THE GARAGE

The garage is located in the first basement at the rear of the building which is on the street level. The trucks are loaded along the south wall, within the building and due to the advantageous location of the new building are away to all parts of the city and suburbs in the shortest possible time. The garage is completely equipped with machine shop, painting shop and wash racks.

PAPER STORAGE ROOM

Below the garage in the sub-basement is the paper storage room, large enough to store seventy carloads of paper at one time. The paper-handling equipment is of the latest type and designed to prevent spoilage in handling. Paper comes in on the *Times-Star's* own spur track and by a specially designed Lowerator is dropped to the storage floor by means of tiering machines. This paper-handling equipment was especially designed for the *Times-Star* and is claimed to be the fastest paper-handling equipment in the United States.

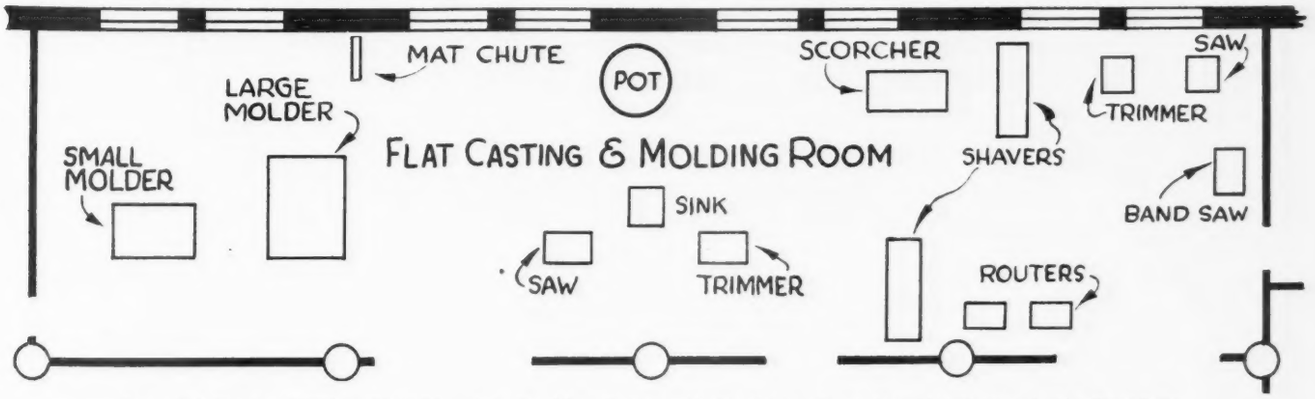
ELECTRIC EYE CONTROLS TIERING MACHINES

The tiering machines are remotely controlled due to the first known application of the "electric eye" in horizontal transport. There are two of these tiering machines, one having 27 bays or stops and two loading stations and the other having 39 bays and two loading stations. The remote control eliminates a rider on the machine and the roll may be elevated to the second or third tier level during the movement of the machine to its proper bay. Rolls are taken to the reel room floor by a special elevator which also may be used as an auxiliary to the Lowerator in unloading cars of paper. Both return to the starting point automatically.

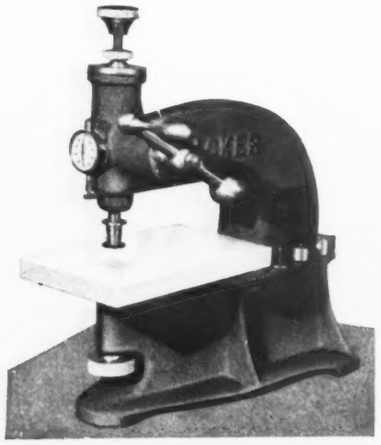
INK TANKS AND INK PUMPS

The large ink tanks and ink pumps are in this room, suspended from the ceiling to give greater paper storage space.

The newspaper was published in this new plant for the first time on January 2, the complete removal of equipment from the old plant being effected over Sunday, January 1, forty years to a day from the first occupancy of the old building.




*Layout of Cincinnati "Times-Star" Stereotype Moulding Room on the Composing Room Floor. Job Casting Is Also Done Here.*



**Level Forms**
**Hacker Plate Gauges**

The simplest, surest, quickest and cheapest way to level plates in forms is with the Hacker Plate Gauge.

It is done in advance. It is done better than is possible on the press.

Top makeready begins at once and there is less of it.

Hacker Plate Gauges pay for themselves quickly in saving of press makeready.

HACKER MANUFACTURING CO.
320 SOUTH HONORE STREET CHICAGO



**Two-Year Guarantee**
**on ACE CORD-RUBBER ASSEMBLER DRIVING BELTS**
(For Linotype and Intertype Machines)

These belts are now made in a "Balloon" type, which added feature makes possible this hitherto unheard of guarantee.

All other Ace Belts, including the new INTERMEDIATE DRIVING BELT (Price, $1.90 each) are guaranteed for a minimum of a year's service

These include Distributor Belts, Pi Stacker Belts, and Matrix Delivery Belts. These belts are practically stretch-proof, giving greater efficiency.

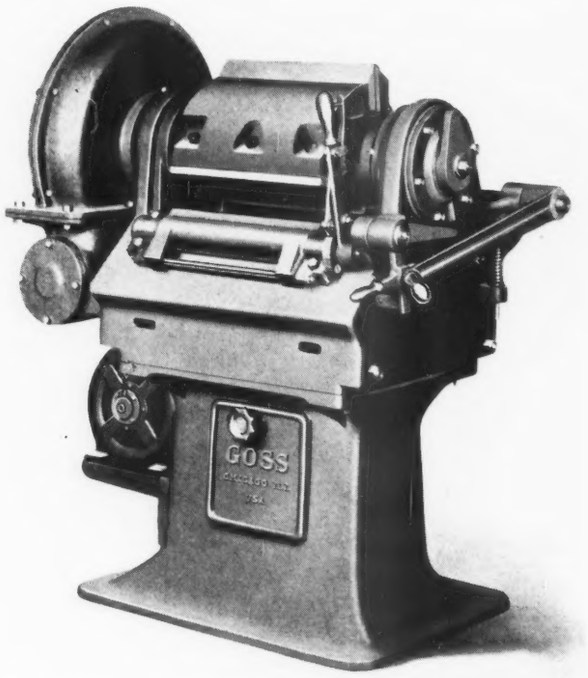
**For Lower Costs**
also bear in mind "STAR" Liners, Spacebands and other typesetting parts.

**Linotype Parts Corporation**
NEW YORK CITY, 270 Lafayette St. KANSAS CITY, MO., 314 West 10th St.
LOS ANGELES, CALIF., 1520 Georgia Ave.


## Latest Printing Equipment Mechanisms

### Goss Double Knife Curved Shaver

Officials of the Goss Printing Press Co., 1535 South Paulina St., Chicago, Ill., state that the Goss Double-Knife Curved Shaver has been designed for those who wish to use the recently announced vacuum electrically-heated Casting box for casting color or magazine plates. The vacuum casting box allows 0.018 in. for shaving in the double-knife shaver. The first knife takes a 0.012 in. cut and the second




knife 0.006 in. cut. It is claimed that the Double-Knife Curved Shaver is not only faster but also more accurate than a boring machine.

Tests of plates cast with the Goss Vacuum Electrically-Heated Casting Box and shaved with the Double-Knife Curved Shaver have shown that in no case was there more than 0.001 in. variation in thickness throughout the plate.

The new casting box and shaver now being offered by Goss are reported to have produced stereotype plates having printing qualities comparable to electrotypes.

### Hacker Precision Make-up Gauge

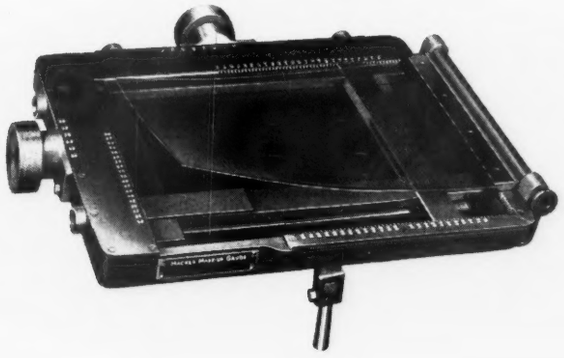
A Make-up Gauge for use in the composing room which is made by the Hacker Manufacturing Company, 320 South Honore St., Chicago, Ill., has just been announced.

It is designed to change make-up and form justification from the rule-of-thumb method to a precision operation.

The Gauge, when in use, rests upon the bank in the position usually occupied by the make-up galley. It is used in lieu of a galley for original make-up and functions exactly like a galley except that it enables the compositor to make up forms to a fine degree of precision. Its use, it is claimed, insures pages being made up exactly square and of the same size, regardless of which Gauge they are made up in or which operator does the work. The pages are accurately justified under lockup pressure which is always uniform and cannot be increased or decreased by different compositors. All pages made up in the Gauge will be in register. All stone justification is eliminated. It reduces, materially, press shifts for line-up and register and press delays for workups.

In operation the Gauge is first set to the over-all measurement of the page or part of a form to be made up. This is done quickly by setting adjustable bars to the pica measure

desired. The range is from 21x28 to 58x79 picas. The bars lock accurately by means of teeth to exact point system measurements. When the type form assembly is completed, the pressure bars are closed until tight. This lock-up pressure is a fixed amount controlled by caged springs. The compositor



can apply neither more nor less pressure and it is the same on all Gauges and to all compositors.

Four small knurled buttons at top and left of the Gauge are feelers which test the justification. The buttons are tight when there is no pressure on the type matter and loose when pressure is on the type matter or form.

The form is justified until all four of these feelers are snugly free or free without end play. The page will then be accurately squared and exactly sized under lock-up pressure in the chase.

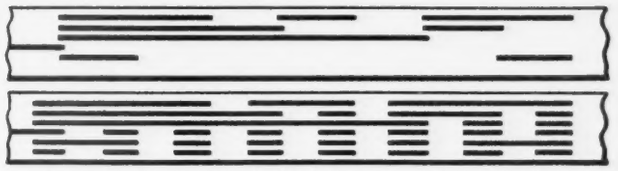
During the course of justifying the type matter, a back-off is provided for the rapid insertion of spacing material during the trial-and-error period of justification.

Operation of the Gauge, it is also claimed, is simple and easily understood. There are no allowances for squeeze in the form, no measurements to be taken, no graduations to read, no guessing or calculating. Pages and forms made up in the device are said to be exact and correct in all factors arising from lateral or horizontal dimension.

The Gauge is 22¾ in. long, 18 in. wide, 3¾ in. high and weighs 60 lbs.

### Improved Distributor Bar

The engineering department of Intertype Corporation, 360 Furman street, Brooklyn, New York, has developed an improved distributor bar for the 72-channel (upper) magazine of the new Model G Mixer Intertype. In the accompanying illustration the top portion of the diagram represents a section of the standard distributor bar and in the lower diagram is shown a section of the same distributor bar, the



matrix supporting rails of which have been increased between combinations.

It is claimed this new bar provides a much greater rail surface for supporting heavy matrices. At the point of drop-off every matrix is suspended by all of its teeth so that each matrix will drop straight from the distributor bar into the channel entrance, thus improving distribution and causing wide-tooth matrices to wear even longer than has been customary heretofore.

The Season's Greetings

On behalf of our entire organization, we extend to you, whose friendship and patronage have added to our success, Cordial Greetings of the Season, together with sincere wishes for your Happiness and Prosperity in the coming year.

BURGESS CELLULOSE CO.
FREEPORT, ILLINOIS

# *You Bet Your Life Imperial Saves Fuel!*

IT DOESN'T MAKE ANY DIFFERENCE whether you use electricity or gas if you will use Imperial Type Metal you will be saving on fuel. Here is why. The lead, tin, and antimony in Imperial Metal are in a 100% solution, in reality a perfect mixture. This 100% solution enables Imperial Type Metal to be cast at lower temperatures and that is where fuel saving comes in. In addition to saving fuel you have less dross. When you study the facts about Imperial and the Plus Plan you begin to realize why they lower metal costs—and lower costs are the best reason in the world why you should

***stick to***

**Imperial**

**METAL**

THE IMPERIAL TYPE METAL CO.

**Philadelphia · New York · Chicago · Los Angeles**


## Catalogs, Books and Bulletins

Readers of PRINTING EQUIPMENT ENGINEER who are interested in securing any of the catalogs, books or bulletins listed below can do so by checking the literature desired. Mark carefully only that literature which you wish to receive. Fill out the coupon and send it to us. The literature will be forwarded without cost except where noted.

*Plate Gauges*—Bulletin, 12 pages, illustrating and describing measuring instruments for the inspection and dimensional control of printing plates and form materials.

*Pyrometer Bulletin*—Illustrates a new, compact, portable pyrometer for use in connection with monotype, linotype, electrotype, remelting and refining processes.

*A Few Choice Curses**!*—Sixteen-page booklet bound in black cover written in behalf of the etcher who finds himself about to lose his religion or his sense of humor because of the misbehavior of his zinc.

*Using Paint as Light*—Bulletin illustrated by means of graph-mannikin diagrams to show the light reflecting value in rooms where the walls are coated with different shades of paint, under given conditions of electrical and natural illumination.

*Bulletin About Felt*—Used for Linotype, Intertype and Ludlow mold wipers, cut to the required shape.

*Umbra and Mayfair Cursive*—Jackets, each with pocket containing specimen sheets demonstrating how these new type faces may be used to advantage in advertising composition.

*Speaking of Records*—Bulletin on performance records of Mechanical-Drive Turbines showing how they are used in various industries.

*Planography*—A very informative booklet written to present facts on this reproduction process.

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**William Reid & Co.** **537 S. La Salle St. Chicago · Illinois**

## The Mechanical Executive and Pressroom Obsolescence

*(Continued from page 7)*

The greatest item of expense in many plants is paying for lack of equipment through wasted effort on the part of the workmen. The mechanical executive who buys new, first-class equipment and maintains his plant in an up-to-date, orderly and efficient condition and surrounds himself with employees of his own type, not only produces work in keeping with his profession but also is the man who invariably knows his costs and receives a just compensation for work done.

## Addison With Martin

It will be of interest to newspaper mechanical executives to know that Joe W. Addison, until recently pressroom superintendent of the Brooklyn *Eagle*, has become a member of the sales staff of the L. Martin Ink Co., New York. Mr. Addison is well known among the executives who attend the annual mechanical conferences of the A. N. P. A. His experience in the mechanics of newspaper printing has been extensive and has brought him a reputation as a skilled newspaper executive.

## Personnel of Mechanical Committee

Recently, it was announced that Walter Ogden, pressroom superintendent of the Cleveland *Press*, had been selected as a member of the A. N. P. A. Mechanical Department Mechanical Committee.

W. E. Wines, Manager of the Mechanical Department, has given to the ENGINEER the full personnel of the Mechanical Committee, which is as follows:

S. H. Kauffman, Chairman (Asst. Bus. Mgr., Washington, D. C., *Star*); W. L. Fanning, Vice Chairman (Treasurer, Westchester Co. Newspapers); T. P. Beacom, Gen. Mech. Councillor, Hearst Newspapers; A. H. Burns, Mech. Supt., New York *Herald-Tribune;* John W. Park, Prod. Mgr., Chicago *Tribune;* Geo. M. Rogers, Gen. Mgr., Cleveland *Plain Dealer;* Walter Ogden, Pressroom Supt., Cleveland *Press;* E. R. Whitrod, Secretary-Treasurer, Montreal *Star.*

*Technical Advisors*—Frank Smith, Mech. Supt., Philadelphia *Bulletin;* Joseph Oswald, Pressroom Supt., New York *Evening Post;* E. W. Greene, Photoengraver, *Christian Science Monitor*, Boston; W. W. Warfel, Photoengraver, Maurice Joyce Engraving Co., Star Bldg., Washington, D. C.; F. C. Palmer, Stereotyper, Jersey City (N. J.) *Journal;* Charles Reber, Stereotype Foreman, New York *Daily News.*

*Honorary Member*—Geo. H. Carter, Public Printer, Government Printing Office, Washington, D. C.

## Ray Barrett Resigns

C. Yewdall, secretary-treasurer of the Matrix Contrast Corporation, New York, N. Y., has announced that Ray Barrett, until recently president and general manager of the corporation, has resigned. In the reorganization following the purchase of Mr. Barrett's interests by Mr. Yewdall and Lon S. Landers, the latter has been selected to succeed Mr. Barrett as president and will have active charge of sales. Mr. Barrett, who is well known among mechanical executives, will take a vacation before entering a new undertaking.

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(Next month we will speak of Certified Service.)

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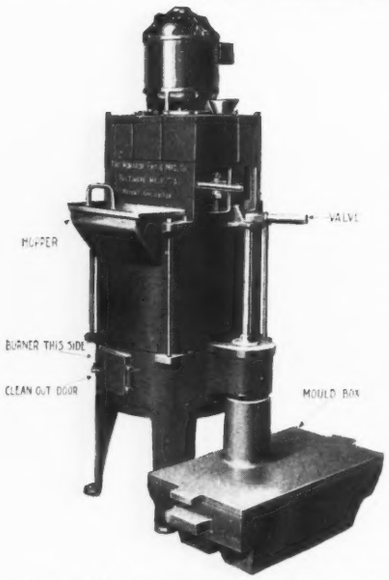


It occupies but two and one-half feet of space and is placed preferably near the larger stereotype pots from which the dross is skimmed. The dross can be immediately thrown into the Renovator, thus eliminating storage of same in cans and the packing for shipment to the smelter.

The Monarch Metal Renovator will reclaim from 65 to 75% new metal from your dross, thereby effecting a substantial saving and maintaining the quality of your metal.

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701-702 American Bldg. Baltimore, Md., U. S. A
WORKS, CURTIS BAY, MD.


## Monotype Acquires Directoplate

In the December PRINTING EQUIPMENT ENGINEER it was announced that the Lanston Monotype Machine Co., of Philadelphia, Pa., had recently acquired an option on the physical assets of the Directoplate Corporation of Chicago. Since then it has been officially announced that in order to develop and further its service to printers and lithographers the Monotype Company has acquired exclusive manufacturing and selling licenses under all patents of the Directoplate Corporation, Huebner-Bleistein Patents Corporation, and W. C. Huebner, covering equipment for the making of plates for offset and gravure presses. W. C. Huebner, pioneer in the development of equipment and chemical processes for plate-making, becomes Technical Engineer with the Company for the development, manufacture, sale and installation of the complete line of plate-making machinery. Improved devices are being designed and engineered, and will soon be in manufacture. Huebner Laboratories in New York will be continued for compounding and testing of solutions, materials and chemicals and for the demonstration of processes in connection with plate-making.

## Dr. Whitney Retires as Director of G. E. Research

Dr. Willis Rodney Whitney, organizer and for thirty-two years director of the famous research laboratory of the General Electric Company, retired from that position owing to poor health on November 1. He was succeeded, by appointment of Gerard Swope, president of the company, by Dr. William David Coolidge, senior associate director of the laboratory. Dr. Whitney continues as vice president in general charge of research.

In 1906, Dr. Whitney persuaded Dr. Coolidge, now the new director, to come to the laboratory from the Massachusetts Institute of Technology, and in 1909, Dr. Irving Langmuir came from Stevens Institute of Technology. Through the work of these two scientists such developments as drawn, or ductile, tungsten, the gas-filled incandescent lamp, the modern high-power electronic, or vacuum tube, improved X-ray tubes, and atomic hydrogen welding were brought to successful culmination.

Dr. Coolidge, the new director, is a native of Hudson, Mass. He was trained at Massachusetts Institute of Technology and the University of Leipzig.

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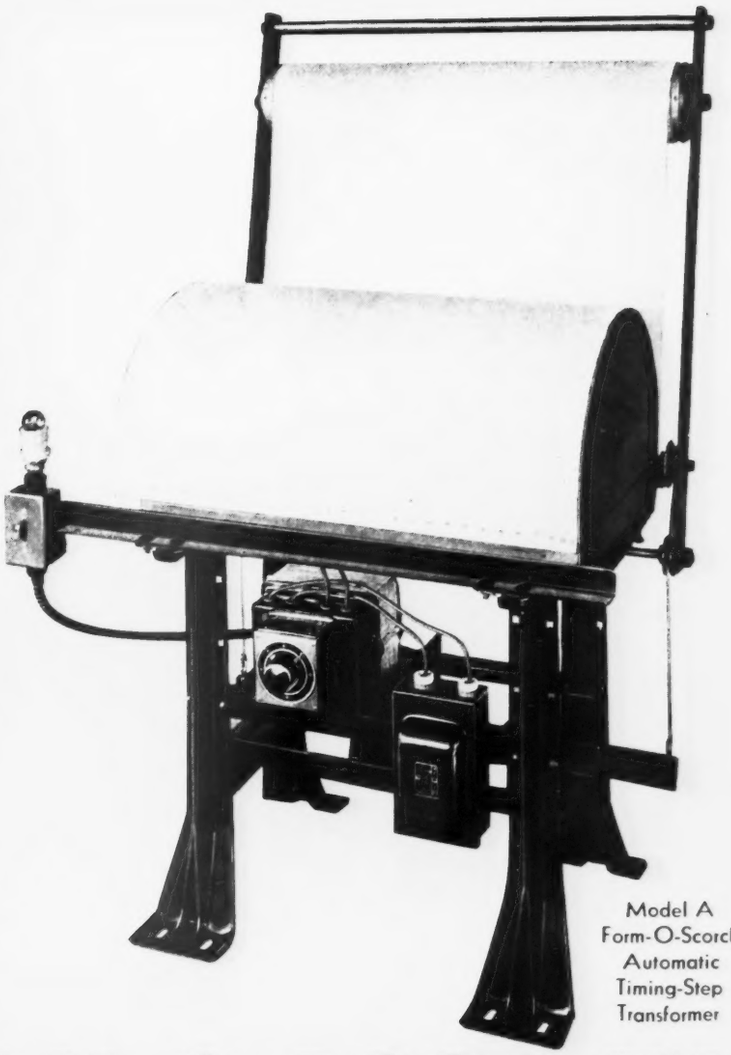

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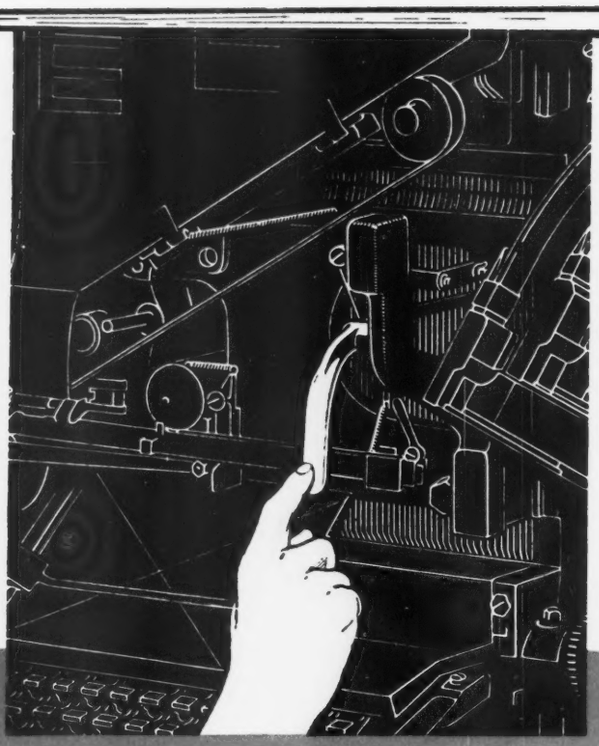

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